SEPTEMBER, 1959

AMATEUR RADIO

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AMATEUR RADIO

SEPTEMBER — — — 1959

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EDITORIAL

★

NATIONAL FIELD DAY

It is inexplicable why the National Field Day Contest has never become very popular in Australia. The Field Day event in the U.S.A. and in Britain appears to be one of the most popular Amateur events of the year. Where does our own N.F.D. Contest fall down? Our Federal Contest Committee have done their utmost to make this event popular but with no apparent effect. Are the rules too restrictive? Is the effort of gathering your gear together and "going bush" for the week-end too great? Prizes have been offered, mobile participation included, DX working incorporated and even large bonus points offered for v.h.f. contacts—all to no avail. The entries still do not rise above the odd dozen or so, who in the main seem to be the same participants year after year.

This Contest has now reached the stage when it must be dropped from our Calendar of Contests or something done to increase its popularity. The importance of this contest as seen at the time of its inauguration was to encourage Amateurs everywhere in Australia to build and experiment with small portable equipment so that in the event of an emergency a large number of portable stations would be available at a few minutes notice to pack up and operate anywhere on battery or emergency power. This concept has not changed—in fact, it is probably more important now than it was originally. In addition, with the advent of the transistor, the task of making small highly-portable equipment is an easier one.

It is certain that most Amateurs today will agree that one of their few reasons for existence, from a civic or public utility point of view, is in their oft-stated speed of getting a line of communication established between two points and being able to quickly pack up and move to another location. Is this statement really true? It would seem from the lack of interest in a contest designed to encourage this type of operation, that it is not. There is only one way of disputing this statement—let us hear your call on the air at the next Field Day.

If, on the other hand, it is something in the rules of the contest which prevents a lack of interest on your part, there is a ready reply to that—write to your Division explaining where the rules fall down, and why you don't intend to enter. Your constructive suggestions are the only answer to allegations of laziness, poor rules or other reasons. The matter appears to be in your hands—this contest takes a lot of time to organise and if it is not required, say so—the Contest Committee will be only too pleased to devote their time and energies to something else.

Your Federal Executive, however, **does** think a National Field Day Contest is important, for therein may lie our future "raison d'etre" or one of the few reasons there will be offered for the existence of the Amateur Service in the world of growing commercialism in Communications. Make a united effort now to prove this contest is worthwhile, and to create the same popularity that exists with the Remembrance Day Contest. The amended rules proposed by the new Federal Contest Committee are now with your Divisions for comment—now is the time for you to have your say in this matter—do so without delay.

W.T.S.M.

(Now turn to Page 12 for Amended Rules.)

THE CONTENTS

Tropospheric Propagation at V.H.F.—Part Two 3
H.T. Control Circuit 4
Hints and Kinks:
6BE6 Preamplifier for both Hi- and Lo-Z Microphones 4
Simple Sideband—Parts 9 and 10 5
How Good Are Your R.F. Chokes? 8
Meet the Other Amateur and His Station—VK3UJ 11
The Bass Strait Ferry—VK7 End 11
Why So Few Entrants in the N.F.D. Contest? 12
Book Reviews:
Magnetic Sound Recording 14
Multivibrator Circuits, Practical Robot Circuits 14
Radio Engineering Formulae and Calculations 14
Proposals for a Mobile Receiver Without H.T. 15
DXCC Listing 15
VHF 16
SWL 17
DX 19
Notes 20

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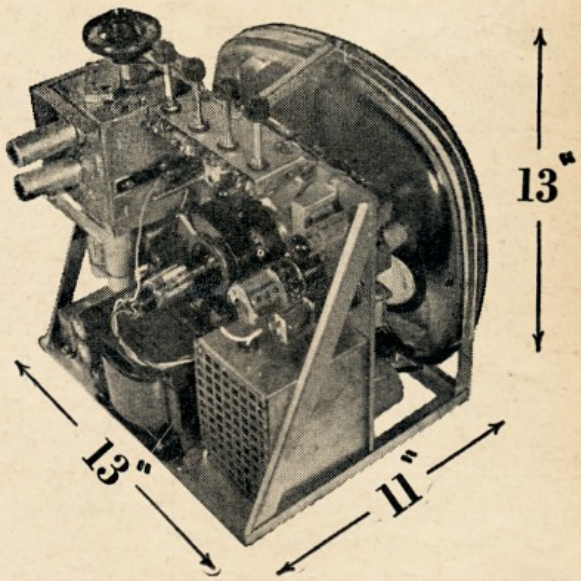

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Tropospheric Propagation at V.H.F.

PART TWO

ALAN ELLIOTT,* VK3AEL

IN the first part of this article an outline of the conditions necessary for long distance tropospheric propagation and the meteorological events which could produce them were given. Now let us examine the weather maps and radiosonde graphs of the atmosphere on some occasions when the two metre band was open. The graphs have been traced from soundings made from Laverton, near Melbourne, during the early afternoon of the days indicated. The water vapour scale is not shown because it varies with altitude thus requiring specially ruled paper; however, the readings of mixing ratio in grams per kilogram are shown at significant points. The graphs should be interpreted with some caution be-

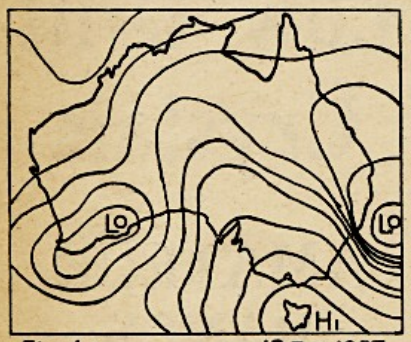
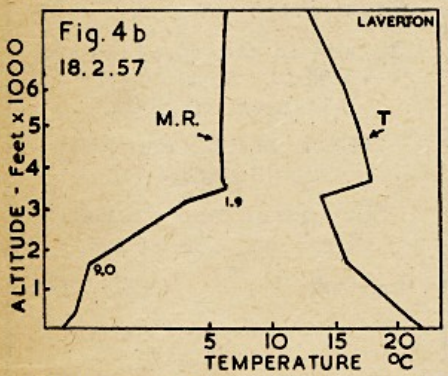


Fig. 4a 18 Feb. 1957

cause of possible instrument errors, the comparatively small number of points plotted and the fact that the soundings were made at the time of day when the band usually is at its lowest ebb. On the original charts the levels were shown in millibars; these have been converted approximately into feet. The minimum requirements for superrefraction are usually quoted as + 2.8°C. per 100 feet rise for temperature or — 0.5 gram per kg. per 100 feet for water vapour content.



It was noted during the examination of scores of radiosonde charts of "good" days that on very few occasions was the temperature inversion alone great enough to cause super-refraction. One such day was 12th February, 1956, when there was a rise of temperature from 2.8°C. to 11.5°C. between 5,300

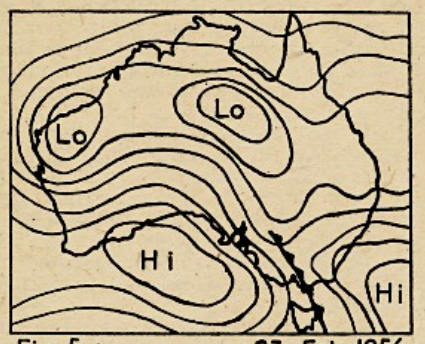


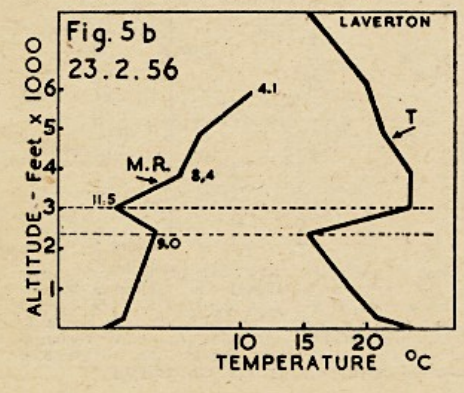
Fig 5a 23 Feb. 1956

and 5,600 feet, an average of 2.9°C. per 100 feet. A small humidity lapse was present also. Some of the charts indicated humidity lapse only. The observations apply to two metres, and are limited to south-eastern Australia where I have first-hand knowledge of conditions.

17th to 18th February, 1957

A weather map which is typical of the chart during widespread two metre DX is given in Fig. 4a. A high pressure ridge existed over Tasmania with the trailing edge spreading out very extensively over South and Central Australia. The low pressure off the eastern coast was a cyclone which moved southwards and retarded the easterly progress of the high, thus favouring subsidence. The evenings of the 17th and 18th February, 1957, will long be remembered by the v.h.f. gang in the area covered by south-eastern South Australia, Victoria and Northern Tasmania where signals were moderately strong to very strong in all directions. On the 18th, contacts were made between Ouyen in north-west Victoria and Launceston on the north coast of Tasmania over a distance of 512 miles. Melbourne television stations were received over a wide area. The weather was fine with some temperatures in the nineties.

The radiosonde chart, Fig. 4b, gives the story of the atmosphere in the afternoon of the 18th. There was a drop in mixing ratio from 9.0 to 1.9 gram per kg. between 1500 and 3300 feet, averaging 0.4 g./kg. per 100 feet. Over the highest 300 feet of this layer there



was a temperature rise of 4°C., i.e. 1.3°C. per 100 feet, giving a total gradient about 25% more than the minimum required. Also, as signals improved somewhat during the evening, surface cooling probably was an additional factor.

23rd February, 1956

A brief opening across Bass Strait followed shortly after a mild cool change without rain on 23rd February, 1956. The radiosonde chart, Fig. 5b, is interesting. There is a sharp temperature rise of 9°C. from 2,400 to 3,000 feet, i.e. 1.5°C. per 100 feet, but the effect of this inversion was more than cancelled by an increase of mixing ratio of 0.4 g./kg. in the same layer.

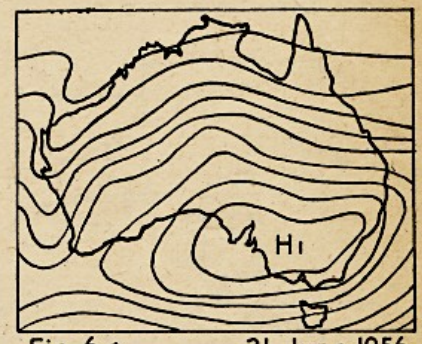
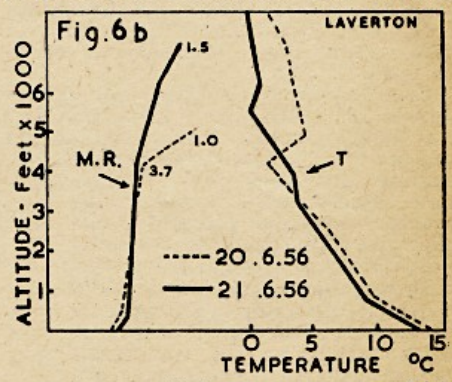


Fig. 6a 21 June 1956

Thus at 3,000 feet the conditions were worse than normal. From 3,000 to 3,700 feet the mixing ratio decreased by about 0.45 g./kg. per 100 feet, the total refraction up to 3,700 feet was about one-third less than necessary. When the contacts were made several hours later there must have been an alteration in the ratio of positive and negative factors.

20th to 22nd June, 1956

Wintertime DX. During this period signals at night were strong and steady over a large part of Victoria, particularly west of Melbourne. The weather



map shows a high pressure area which moved slowly eastwards during this period bringing fine sunny days and calm cold cloud-less nights with widespread frosts and some fogs, the surface conditions frequently associated

(Continued on Page 11)

* 31 Fenton Street, Ascot Vale, Vic.

H.T. Control Circuit

BY K. B. POUNSETT,* VK2AQJ

THE control circuit used at this station kills several birds with the one stone. It provides:—

1. Protection for the rectifiers.
2. Slow charge rate for filter capacitors.
3. Overload protection.
4. Indicator when h.t. is on.

The operation is as follows: Closing S4, after rectifiers have time to warm up, places h.t. at the h.t. output terminal. Current through the 50K bleeder charges the 100 μF. capacitor and then after a short delay closes the relay Ry. The relay should be one chosen to operate at the bleeder current. The one in use by me is a disposals one and closes on about 10 mA.

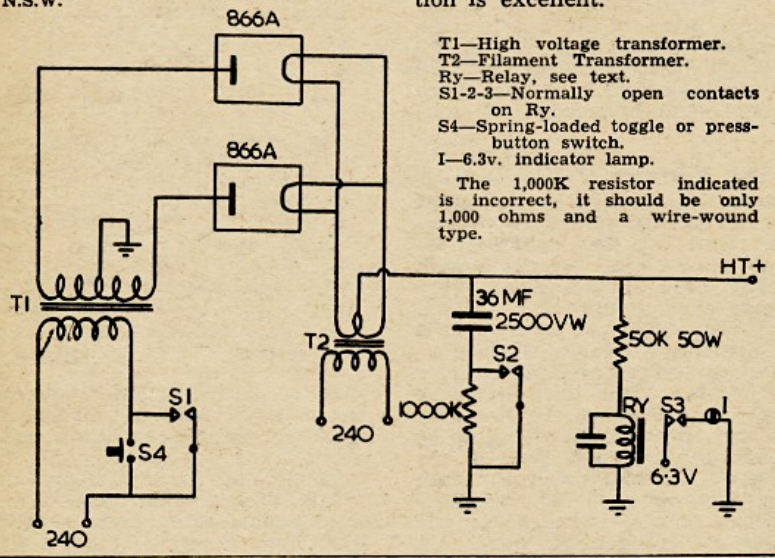
The short delay allows the filter capacitors to charge slowly due to the 1,000 ohm wire-wound resistor. When the relay operates, the contacts (S2) short this resistor. At the same time contacts S1 close the transformer primary circuit, locking up the system.

Release of S4 now does not effect the circuit and contacts S3 complete the indicator circuit, showing that the high voltage supply is on.

A short in the h.t. circuit causes loss of voltage and subsequent relay hold-in current. The relay drops out and S4 must again be manually operated to obtain h.t. Thus over-load protection is achieved.

Some eye-brows may be raised at the lack of chokes in this circuit, however this is standard practise in s.s.b. transmitter power supplies and the regulation is excellent.

* Flat 22, Seiffert Centre, Lowe St., Queanbeyan. N.S.W.



T1—High voltage transformer.
T2—Filament Transformer.
Ry—Relay, see text.
S1-2-3—Normally open contacts on Ry.
S4—Spring-loaded toggle or press-button switch.
I—6.3v. indicator lamp.

The 1,000K resistor indicated is incorrect, it should be only 1,000 ohms and a wire-wound type.

HINTS AND KINKS

6BE6 PREAMPLIFIER FOR BOTH HI- AND LO-Z MICROPHONES

Preamplifiers constructed here in the past have always employed either two high-gain tubes of a dual triode in order that both crystal and dynamic (low-output type) microphones could be used.

Recently, while working out design details for a completely new amplifier, the thought occurred that one of the popular r.f. mixer tubes might operate satisfactorily in a single-tube triple-purpose circuit having provision for both xtal and dynamic-mike input and, at the same time, ability to serve as the mixer.

To test this theory, a type 6BE6 pentagrid converter tube was tested in the circuit shown as Fig. 1. After settling on the component values listed, the arrangement actually exceeded my fondest hopes. By connecting the dynamic microphone transformer to grid No. 1 of the tube, and the crystal mike to grid No. 3, not only did a rather neat mixer result, but the over-all gain of the amplifier remained essentially constant regardless of which microphone was used. Apparently, the difference of approximately 20 db. in gain that the No. 1 grid arrangement has over the grid No. 3 circuit compensates for the difference in microphone output levels.

It is reasonably certain that the idea is not completely new, but it is one that I have never seen in print. Perhaps the circuit won't find too much application in Ham band equipment, but it may appeal to Amateurs interested in hi-fi, recording, etc.

—F. L. Mason, KH6OR, "QST" Jan. '58.

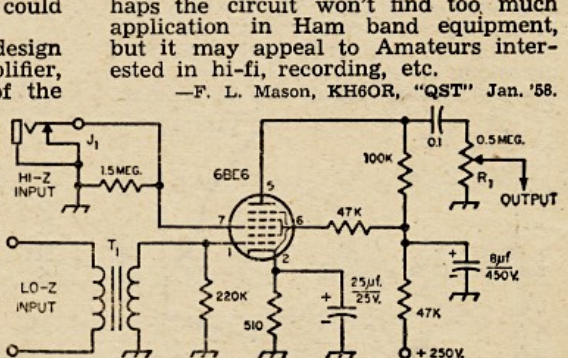


Fig. 1.—KH6OR uses this preamplifier-mixer circuit with both crystal and dynamic microphones. R1 is the gain control for the amplifier stages following the 6BE6. T1 is a dynamic microphone-to-grid transformer. All resistors except R1 are ½ watt composition. Capacitors marked with polarity are electrolytic.

SIMPLE SIDEBAND*

PARTS NINE AND TEN

LESTER EARNSHAW, ZL1AAX

AN ALL BAND HETERODYNE UNIT SUITABLE FOR FILTER OR PHASING RIGS

I have long been of the opinion that the modern tendency to throw tubes into a rig quite regardless of cost or complexity is an attitude to be condemned and one of my first acts on receiving a circuit that interests me is to go over it and see if it can be simplified. Yet, I am going to discuss an all band heterodyne unit that itself uses one more tube than the excellent, yet simple, unit described last month. There are times when, if you would have "frills," you must pay for them!

Although last month's system is perhaps one of the most widely used systems in the world of Ham Radio (when used in conjunction with the phasing method of s.s.b. production) it does have one or two disadvantages. I list these as follows:

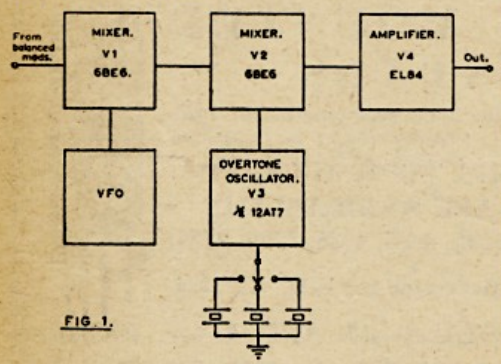


FIG. 1.

The need to multiply the v.f.o. frequency for 40, 15 and 10 metre operation also doubles the v.f.o. frequency instability. A ten cycle drift in a certain period may well be a 30 cycle drift on another band. This is perhaps the major disadvantage.

The tuning rate or kc. per revolution of the v.f.o. knob will vary from band to band.

The required frequency coverage is quite large (up to two megacycles if the whole of the 10 metre band is to be covered).

Band-changing inverts the sideband depending whether the oscillator is on the low or the high side of the signal.

In favour of the system shown in the block diagram of Fig. 1 and the circuit diagram of Fig. 2 are the following:

Stability of the output signal is that of the v.f.o. for all bands.

The tuning rate is constant and may cover roughly 500 kc. (or 1 megacycle if you would cover the 10 metre band in only two "swipes").

Suitable for filter or phasing type rigs.

It also has disadvantages. These are:

Requires several crystals and more components.

Forty metres will have the sideband inverted. (Lower sideband will become the upper and vice versa.)

The choice is yours. My money is on the latter system and is in fact used at this station.

Describing the System

V1, the first mixer, may be identical with last month's and the v.f.o. may be conventional—perhaps an ARC5 conversion. ("QST", March 1956.) In V1 the v.f.o. is mixed with the s.s.b. signal from the balanced modulators and the output, which is in the range of 3.5 to 4 megs. (may be extended to 4.5 megs. if you would cover the 10 metre band in two "swipes"), is fed to the second mixer V2. On 80 metres V2 acts as an amplifier and the input and output coils of the EL84 are loaded with resistance to reduce its output comparable with that obtained on other bands. The EL84 is an ordinary amplifier operating in Class A.

C1 and C2 may be fixed condensers and the coils slug tuned and also stagger-tuned to give a more or less even response across the band. Alternatively, small trimmers may be wired across the condensers C1 and C2, repeaked when large excursions in frequency are made. As s.s.b. is becoming more popular so it is tending to move away from the spots at the high frequency end of the bands, thus the need to use the trimmer will grow greater. In my own case I have a trimmer across C2 only.

In V2, the second mixer, the output from an overtone crystal oscillator is mixed with the 80 metre signal and converted to the required band exactly as is done in a receiver when double conversion is used. (But in reverse now of course.)

With the exception of the overtone oscillator all circuitry is straight forward. Other tubes may be used in place of the EL84 and 6BE6 if suitable changes are made to the grid and screen grid voltage requirements. Whatever tubes you use, make sure they are stable.

The Overtone Oscillator

This is really the heart of the whole unit. But first I will give you a little history of how this came to be.

When the need was felt for a unit of this type I originally used a 3.5 meg. crystal and endeavoured to operate it on its 3rd, 5th and 7th overtones. This I was able to do, but by the time I got to the 7th overtone the output was so small it was negligible. Also, as the frequency went up so did the frequency instability suffer. Although perhaps the idea had merit it had lots of disadvantages. So then I tried using crystals operating on their fundamentals but multiplied (by 3) in a further stage. This worked fine except that the switching was complex and also the unit produced lots of healthy signals in the output that "didna ought to be there." The fundamental and second harmonics of the crystals were there in full uniform and these I could see, unless I slew them first, were going to cause me to have a little tet-a-tete with my friend the radio inspector. Thus it was, the idea of using an overtone oscillator **because it has no output on its fundamental or second harmonic frequencies,** was born. Of course, if you are able to obtain the fundamental crystals at

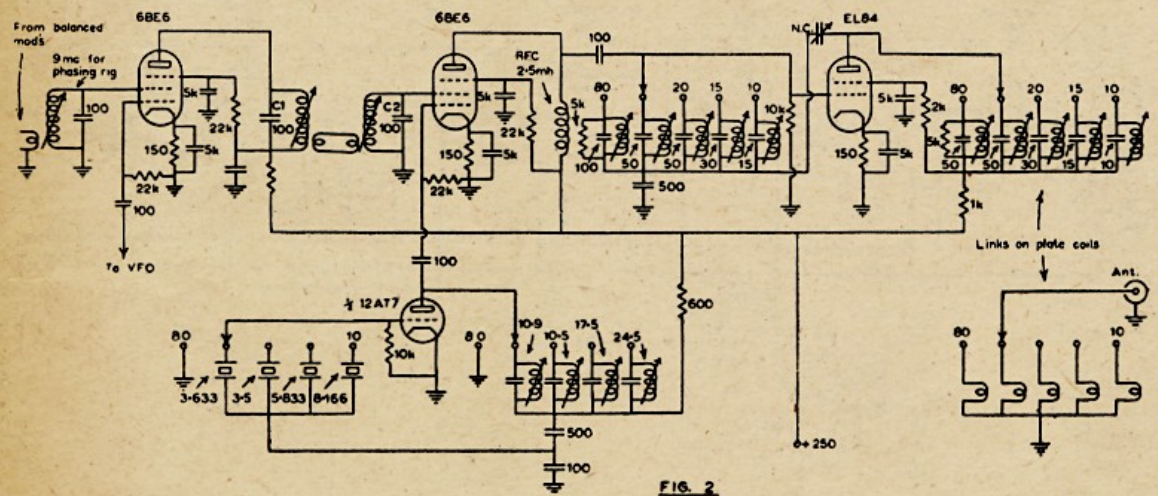


FIG. 2

The plate decoupling resistor and by-pass condenser of the first 6BE6 mixer are 220 ohms and 0.005 μF. respectively.

* Reprinted from "Break-In," Jan., Feb., '59.

the required output frequency, then you are very lucky indeed and the oscillator may be a conventional straight through job.

And so it was that four chassis and a mile of wire later, after having experimented with various overtone oscillators and mixer circuits, the capacitive feedback type of overtone oscillator was used.

For Output of	Use Crystal	Injection Freq.
3.5 - 4.0 Mc.	nil	nil
6.9 - 7.4 „	3.633 Mc.	10.9 Mc.
14.0 - 14.5 „	3.5 „	10.5 „
21.0 - 21.5 „	5.833 „	17.5 „
28.0 - 28.5 „	8.166 „	24.5 „
28.5 - 29.0 „	8.333 „	25.0 „

The crystals were from W.A.R.B. or disposals sources and I did not have too much difficulty getting them operating on their 3rd overtone. It is as well to know that some crystals may dig their toes in and refuse to budge when operated in this mode. If this is the case, try a different value of feedback condenser C3 and you may kick them into operation.

When operated as overtone oscillators as distinct from operating on a 3rd harmonic, the output frequency may not be exactly three times that marked on the crystal.

Output from the EL84 should be sufficient to drive an 813 ZL Linear to 100 watts and, indeed, on all bands except perhaps 10, there will be a large surplus of drive. This, in my own case, I dissipate in resistors paralleled with the output coils of the EL84.

Coils may be plug-in or band-switched.

Beware!

The output circuits of the EL84 will also contain the oscillator frequencies (24.5 megs. when on 10 metres for example). Make sure the grid circuits of the following tubes are tuned to the correct frequencies.

In conclusion, I mention that I also have a converter attached to my receiver using the identical principle in reverse. All signals are converted to 80 metres and the oscillator is an overtone, exactly as shown. In fact, for a while, I used the one oscillator for both transmitter and receiver.

Further Cautions

Do not attempt to use a 3.5 meg. crystal operating straight through to mix with the 80 metre signal to get to 7 megs. The 3.5 meg. crystal will have a second harmonic which will feed through the 7 meg. circuits nicely. I know, I tried it!

Best operation is had here with a 12AT7. Other tubes had lower output and did not want to function as readily.

A RECEIVER FOR S.S.B., A.M. AND C.W.

The circuit diagram of Fig. 3 shows the receiver in use at this station. It is not pretentious nor expensive and was in fact constructed from ordinarily available parts, many of which came from the junk box, junk sales or ordinary radio service shops. Yet this receiver will perform as well as most of the more expensive American receivers and has, in fact, been operated right alongside a Collins 75A4 and gave almost identical results. To obtain these results there are one or two points I must explain for these cannot be read from a circuit diagram.

(a) Use a steel chassis. The chassis must be **absolutely** rigid. In my own case I strengthened the chassis under the oscillator section by running brass channel ¾" deep x ½" wide from front to back.

(b) The tuning mechanism must be **absolutely** rigid. There must be no tension between the panel and the tuning condenser. Even if a flexible coupling is used tension here will cause severe drift. My own tuning mechanism is ex-CR100 and bought at a junk sale. An ARC5 (or Command) receiver gang has an excellent gearing arrangement and it is not too difficult to arrange a slide-rule dial arrangement for the normal frequency reading. A logging scale fitted to the tuning shaft will give an excellent means of resetting.

(c) The receiver must not contain switched tuned circuits. The receiver covers 3.5 to 4 megs., and other bands are obtained by using a band-switched crystal controlled converter. This means that all bands will have the same sta-

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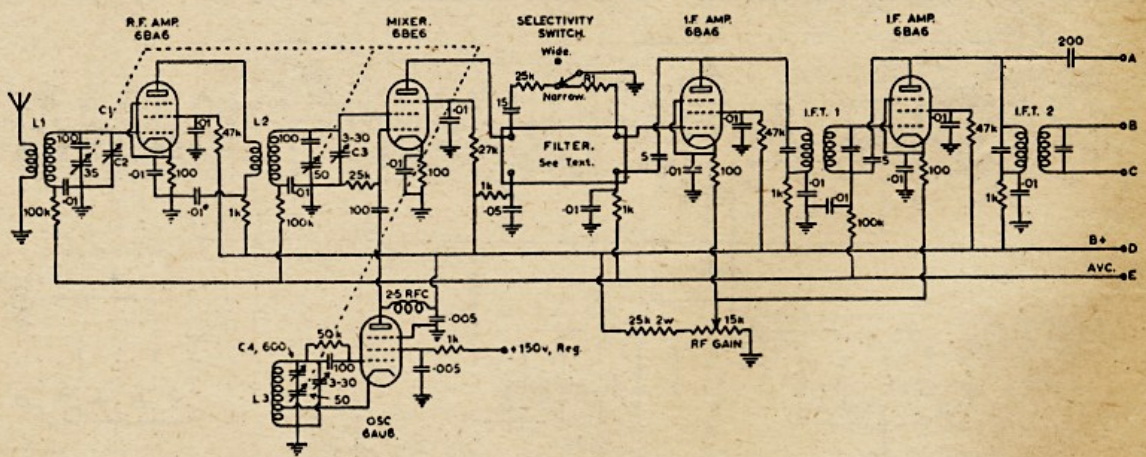


Fig. 3.

Chassis 11 x 18 x 3 inch steel.
C1—50/50/35 three-gang.
C2—3-20 pF. midget variable (ant. trimmer).
C3—3-30 pF. Philips trimmer.
C4—600 pF. padder.
Cx—Approx. 100 pF. Adjust value to obtain approx. 5v. of r.f. from b.f.o. (R.f. probe on v.t.v.m.)
All by-passes disc ceramics. Use silver mica condensers in tuned ircuits.
L1—44 turns 34 s.w.g. enamelled on ⅝ in. diam. form. (ARC5 ceramic former in can). Link 5 turns 38 d.s.c. s.w.g. at bottom L1.
L2—As above. Link 6 turns.

★

bility as 80 metres and 10 metre s.s.b. is no longer a game of hide and seek with the odds in favour of Donald.

(d) The tuning rate of the dial mechanism must be slow. 25 to 50 turns of the tuning knob to cover 3.5 to 4 megs. is about right. Anything faster will make tuning of s.s.b. a hectic business.

(e) Use a large tuning knob of say, 2" diam. This will enable you to "feel" the signals better. You'll know what I mean when you have tried it.

(f) Placement of parts must not allow heating of the local oscillator or b.f.o. components. Keep the heat producing components well away from coils, gang condensers, etc.

Brief Description of Receiver

The front end of this receiver is more or less conventional. The local oscillator, however, is a pentode for good purpose. It was found here that a fluctuating heater voltage caused severe oscillator drift when a triode was used. No difficulty has been experienced with the 6AU6.

A switch by-passes the filter for normal wide reception and the resistor R1 is adjusted in value so that the output or volume of the receiver is the same with the filter in or out. The filter itself is to be the subject of a future article. However, you may if you wish, use a series of back-to-back i.f. transformers in here to obtain better selectivity than that ordinarily obtainable from two i.f. stages.

The crystal controlled converter is also to be part of a future article.

The i.f. amplifiers are conventional in all respects except perhaps for the fact that they are, in this receiver, neutralised.. Neutralising is in no way difficult and there are no adjustments to be made. But the value of the neutralising condenser and also the a.v.c. by-pass at the bottoms of the two i.f's. must remain those stated. Variation of these condensers may cause the stages to oscillate. Proper neutralisation will generally prevent oscillation unless your layout is such that the receiver should really have been a self excited transmitter!

R.f. for the a.v.c. is taken from the plate of the last i.f. tube and **not** from the secondary of the i.f. transformer as is usual.

Output from the last i.f. is also applied to the grid of the 12AU7 product detector which is used whenever s.s.b. or c.w. would be copied. The switch S1 selects the output from either the diode a.m. second detector or the s.s.b. product detector and connects it to the grid of the 6AV6 audio amplifier.

The 6AV6 drives a conventional 6AQ5 output tube. The 1 meg. resistor from the plate of the 6AV6 to the plate of the 6AQ5 applies inverse feedback.

With the b.f.o. operating but the condenser connecting it to the grid of the product detector removed, there should be only small output and definitely **no** heterodynes due to the b.f.o. feeding into some unauthorised circuit. With the receiver set up for a.m. but the switch shorted so that the b.f.o. operates, there should be no sign of the b.f.o. getting into the i.f. channel. **This is important** and you may be called upon to completely shield the b.f.o. portion. Next month I will give the details of the layout used here.

Use normal wiring procedures and remember to watch the earthing points —use one alongside each tube and earth all the associated components to that one point. Don't earth the a.v.c. bypasses at the i.f's. themselves but at this one point. The same applies to the plate decoupling condensers.

The operation of the receiver will be covered next month.

— . . . —

TO SAY 73, GOOD LUCK

I only hope that when I die,
There'll still be room left in the sky
For me to send or call CQ,
And say hello to all of you.

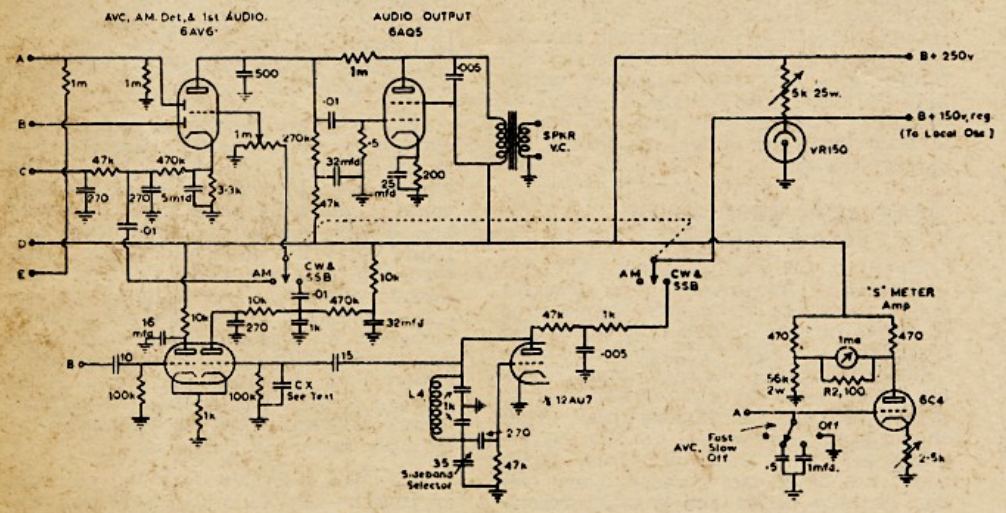
It's now close on forty years,
Since through the ether to my ears
Came that morse I never forgot,
Just three things—dot, dash, dot.

My sigs were heard from afar,
Answered by Joe Reed, 2JR.
Nervously I grasped the key,
Excitement surged all over me.

Since that night in '26
I've had some fun, I've had some kicks,
For now there's seventeen thousand QSOs
In the log at 4DO's.

Good friends I've made by radio,
So I sincerely hope that when I go,
I'll have a mike and key, old pal,
To say 73, good luck—from Hal.

HAROLD HOBLER, VK4DO.



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L3—Made from ARC5 2830 Kc. i.f. transformer. Former ⅜ in diam. ceramic. Winding length ⅝ in. approx. 40 turns. (Original coil used with some turns removed.) Link 12 turns. Original condenser in can is retained and connected across coil sec. This condenser has a capacity of approx. 30 pF.

L4—Made from i.f. transformer. Remove one winding and take turns from other winding until right frequency is obtained. Listen for harmonics in broadcast receiver; the difference between the harmonics will be the frequency of the b.f.o.

IFT1 and 2—Philips flat type No. 6840, 475.

R1—Adjust value to give equal output whether filter is in or out of circuit.

R2—Approx. 100 ohms. May be a potentiometer. Controls sensitivity of meter.

Filter—Crystal lattice, or may consist of back-to-back i.f. transformers connected together through approx. 2 pF. capacity. Further details next month.

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How Good Are Your R.F. Chokes?

H. F. RUCKERT,* VK2AOU

IT seems to be quite a popular belief that r.f. chokes are so critical and so difficult to design that Amateurs do better by buying these components. The various publications give little information, or the recommended design is so complicated, that there is little chance to build two chokes with the same characteristics. Some other types are so large that they would not fit into most transmitters. To this confusion comes the bad experience that in some cases the p.a. blew up, the choke burnt away with plenty of smoke, or that an 807 driver stage did not give enough power to drive a p.a. with another 807.

Therefore the author investigated the choke problem about 10 years ago and the details were published in the August and September issue of the "CQ" 1949 (now "DL-QTC"). A few years ago "QST" confirmed very well the findings of the writer, but somehow the choke problem still exists.

THE TESTING APPARATUS

Admittance meters (circuit of same shown in Fig. 1) covering the range 0.1 to 100 Mc. allow direct measurement of the high frequency resistance of r.f. chokes, and their series as well as parallel resonances were also determined. The apparatus consists of a signal generator, a calibrated tuned circuit, a low capacity diode with a substitution resistance which is calibrated, and a vacuum tube voltmeter.

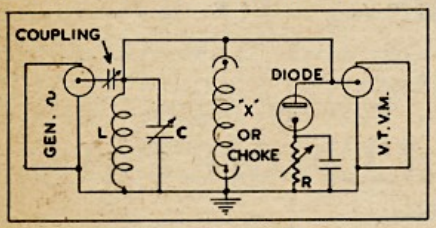


Fig. 1.—Admittance Meter.

The r.f. choke is connected in parallel to the tuned circuit (capacitors, coils, tuned circuits, complete r.f. stages, etc., may also be tested in this way). The tuned circuit is tuned to resonate at the generator frequency selected, with the choke in parallel, until the voltmeter shows maximum deflection. The coupling capacitor is adjusted to get exactly half scale voltmeter reading. The substitution resistance in the cathode lead of the damping diode is now at the maximum value, not allowing d.c. diode current to flow and so practically not representing a load parallel to the tuned circuit.

The choke is now removed, resonance of the test tuned circuit is restored by adjusting the air capacitor for maximum voltmeter reading, and the substitution resistor is so adjusted that again half scale voltmeter deflection occurs. The ohm value of the resistor now represents the h.f. resistance of the choke at this operating frequency.

* 25 Berrille Road, Beverly Hill, N.S.W.

A low value of 2 to 10K ohms indicates that a series resonance frequency was found if no detuning of the air capacitor was required to restore resonance. A parallel resonance frequency would be indicated if again no detuning was caused by the choke but a very large substitution resistor value was required to bring the voltmeter to half scale reading; this r.f. resistance may reach values as high as 5 megohms.

In this way several "popular" chokes and many Amateur-made chokes were tested by checking at a number of frequencies, especially around the Amateur bands between 1 and 100 Mc. A winding machine to make pie-type coils was also available.

THE PURPOSE OF A CHOKE

The r.f. choke has the purpose of representing as high an r.f. resistance as possible at the operating frequency or frequency band. If we have a p.a. tank circuit which has a load impedance of 3-5K ohms, our choke, which is parallel to the tank in the case of shunt feeding, must have at least a 30 times higher r.f. resistance—e.g. 100K ohms or more if possible. If the choke is operated at one of its series resonances, we shall shunt the tank circuit and the choke has to handle r.f. power until it goes up in smoke. At the same time, we get the wrong load for the p.a. valve and all the input (or a far-too large amount of it) remains as dissipation power at the plate and not enough r.f. to the aerial. An overheated valve, red plate and gas instead of a vacuum will be the result. In the case of a driver stage, or p.a. grid choke, insufficient drive to the following valve will be indicated.

If a choke is operated near such resonances, their effectiveness will vary largely when operated over an Amateur band and the transmitter will not function uniformly over the entire band. If we try to avoid shunt feeding and use chokes only in the r.f. cold leads of the plate and grid circuit we may be lucky, but there is the chance of inefficient by-passing and the strong resonances of the choke could still be the reason for t.v.i. due to a resonance falling on a harmonic frequency which may be near a t.v. channel. There is therefore only one safe way and that is to understand the choke and to use the correct design.

MEASURING RESULTS OF TYPICAL R.F. CHOKES

Curve 1 of Fig. 2 shows the r.f. resistance v. frequency of a popular choke consisting of five pie-wound coils of different size (number of turns and inductance). The "expert" who designed this choke claimed that this is the best way to prevent individual resonances of the various coils from showing up. As we can see, the resonances are still there and this choke could not be worse, because every coil has its own series and parallel resonances. These "Xmas tree" type of chokes cannot be recommend at all. Some twenty chokes of this type (with different numbers of turns and coils) were tried, but the results were always absolutely useless. Curve 1 shows that even at parallel resonances the resistance is too low, indicating that the inductance of 0.6 mH. is already too much for frequencies above 10 Mc. We can now imagine how little effective the popular 2.5 mH. will be.

The next choke (Curve 2, Fig. 2) had four identical pie-wound coils, but the inductance was very high (4 mH.). The resistance is even low at 3 Mc. and inadequate at higher frequencies.

We now tried a small choke (Curve 3) of ¼" diameter and ½" long which had a small iron dust core. The inductance was only 33 μH. Having one coil only, the parallel resonance was at 30 Mc. and a value of about 2 megohm was achieved. This simple and small choke was therefore very much better than the expensive types. This choke had only 17 μH. inductance after removing the slug.

Some more tests were made with pie-wound chokes using identical coils (Curve 4) in an endeavour to obtain less resonances. This example was a choke with seven coils having 20 turns each. Due to the identical windings, the combined series resonance was extremely sharp, being at a common frequency near 28 Mc. This choke would cause some trouble if connected to a 28 Mc. p.a. stage, because the tank or grid would be shorted out.

After many tests, a small choke with four identical pie-wound coils (Curve 5) having 40 turns each was developed. The core was a two-watt resistor after the carbon was removed. By adjusting the distance between the coils to about ⅛" and selecting a critical distance to the metal cap at the ends of the core, it was possible to have only one series resonance near 21 Mc. and this one was no longer deep (100K ohms). The inductance was only 120 μH., which is just the right "L" for chokes covering the range 3 to 60 Mc. The four coils were glued to the ceramic resistor body with polystyrene.

In a 150-watt transmitter one of these chokes was connected in the B+ line at the cold end of the p.a. tank. The transmitter got fairly warm during contests and after some time the writer had a look inside the transmitter and found that the magnetic pulse, when throwing the stand-by switch, had pushed all coils close together at one end of the core. These pie-wound coils have also the disadvantage that in shunt fed circuits with high r.f. voltage (modulated p.a.) the volts per layer easily become so high that voltage breakdown occurs between wires of different layers and the choke burns up.

The conclusion was that the old rule of thumb—use as much wire for the

choke as a quarter-wavelength of the operating band is (or middle of range) and wind a single layer coil with a length two to three times the diameter —is still the best method.

A PRACTICAL CHOKE

For a 3.5 to 30 Mc. transmitter, the choke parallel to the tank (hot end of pi-coupler to B+) may have the following dimensions: Diameter 0.8", the length of coil winding 2.4", 90 turns of 23 gauge wire; L = 50 μH. The wire should be enamel and 2 x silk covered, thick enough to carry the d.c. plate current plus the audio modulation current without getting warm. This choke has no resonance holes between 3.5 and 30 Mc.

After installing the choke in the transmitter, we can easily check the performance. A small neon lamp may be held near the choke and by moving it down from the hot to the cold end, the light should become less and less. If the light extinguishes before we reach the end of the choke, we have most likely too many turns. But if the light is still bright with the globe near the cold end, then the choke is too small. When doing this test with the transmitter on and running high power, it is advisable to keep one hand in the pocket, and the neon globe must only be held by the glass.

With the transmitter switched off we also can check the choke for resonances with the g.d.o. There should be no dip near any Amateur band.

AMATEUR STATION AT TRADE FAIR

It is proposed to install a Ham station at the Trades and Industries Fair to be held at Cairns, Qld., on 1st, 2nd and 3rd October. The station will be operated under the call sign of VK4ZW and it is hoped to work on 7, 14 and 21 Mc.

All Amateurs in Cairns will do the operating and will be seeking contacts with other Amateur Radio stations. It is requested that Hams make a point of looking out for VK4ZW while operating at the Fair and give that station many contacts.

It is anticipated that a special QSL card will be printed and sent out for all contacts made.

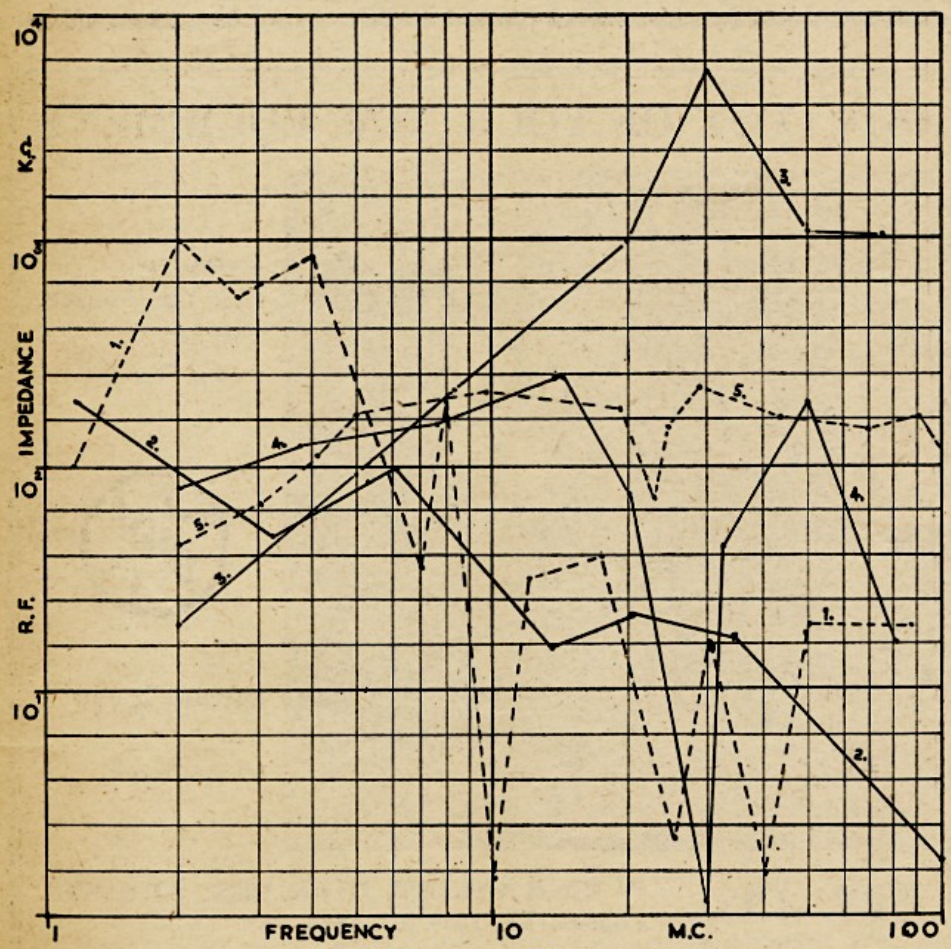
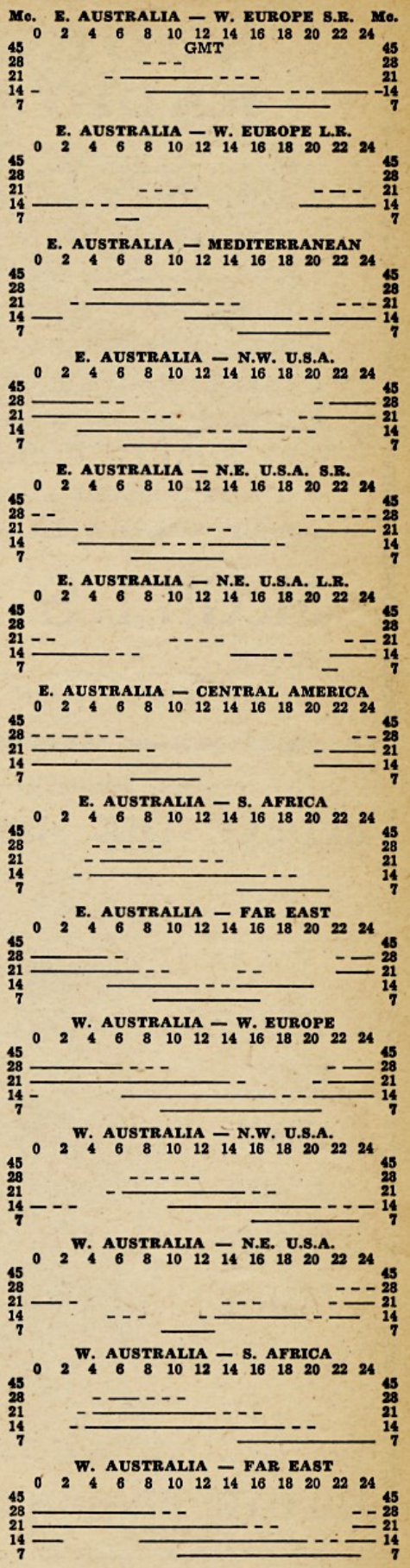


Fig. 2.—R.F. Resistance v. Frequency Chart.

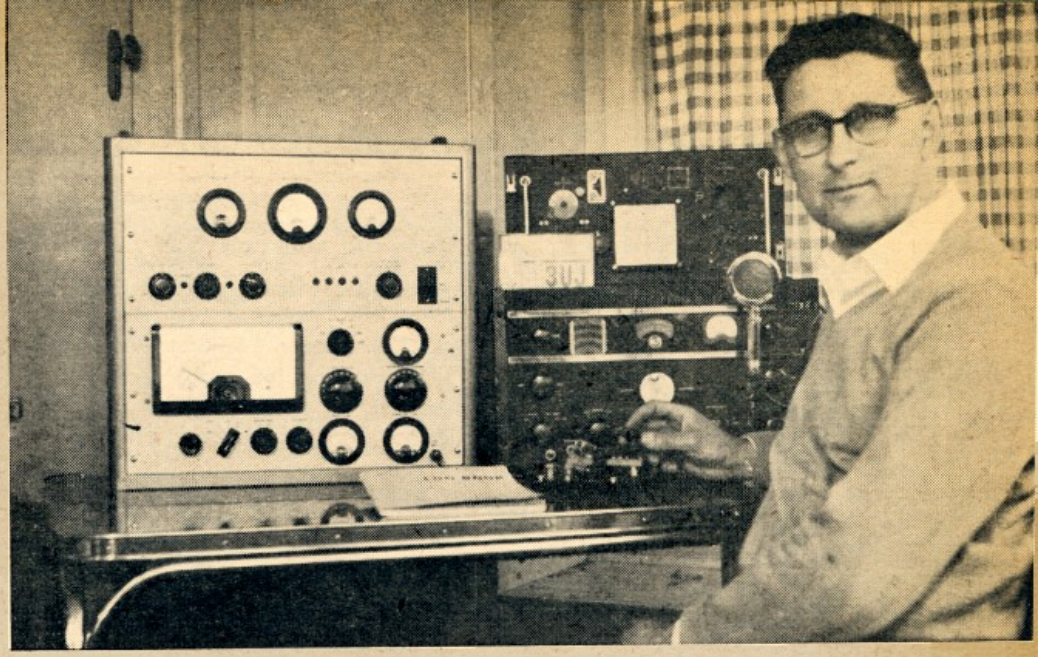
PREDICTION CHART, SEPT. '59



MEET THE OTHER AMATEUR AND HIS STATION

ANDY ROUDIE*

VK3UJ



ANDY was born in Melbourne in 1913. During the period from 1924 to 1930, many types of crystal sets and battery receivers were constructed for broadcast and short-wave reception, this providing the initial interest and experience in Radio.

During the following two years, he completed a Radio Course at the "Working Men's College," now the Royal Melbourne Technical College, and the A.O.C.P. was obtained in 1932.

QSO No. 1 was with VK3CX, using a 201A t.p.t.g. transmitter early in 1932.

Since then, Andy has operated his station from seven locations in and around Melbourne, the present one at Croydon, 19 miles east of the city and 450 feet above sea level, being quite good for both reception and transmission.

* Croydon Way, Croydon, Victoria.

The photograph shows the present station equipment and the operator himself.

The transmitter uses a Geloso v.f.o. into a parallel pair of 6146s with pi-coupler output; the modulators being a pair of EL34s. All bands from 3.5 to 28 Mc. have been worked on both phone and c.w., but at present only dipoles are in use on the 7, 14 and 21 Mc. bands.

The receiver is an AR88D, tuning from 500 Kc. to 32 Mc. Above the receiver is the frequency meter.

Other interests include 7 Mc. mobile and portable operation, photography and l.p. record reproduction.

THE BASS STRAIT FERRY—VK7 END

FOR the benefit of mainland Amateurs who anticipate a holiday tour of Tasmania I offer some advance information from the point of view of Mobile and Portable Radio operation.

The starting off point is, of course, Devonport. Here we have half a dozen active VK7s. Twelve miles westward along the coast at Ulverstone are two members, another 18 miles west at Burnie and districts are nine VK7s. It may be of interest to mention that all Amateurs in the above areas are members of the W.I.A.

Therefore, it should be comparatively easy to make contact with some locals in this area.

Going in the opposite direction, to the East, 35 miles away, Deloraine is reached, at an altitude of about 800 feet. From here one can turn off to the South over the central highlands, 4,000 feet, or proceed East another 30 miles to Launceston. Here again are active VK7s.

Going back to Deloraine, if one cares for mountain scenery and lakes (and the Great Lake is about 100 miles round the shoreline) despite the not-so-good road, the trip over the mountain is one that is worthwhile and from the elevation, the possibilities of QSOs, particularly on v.h.f., are inviting. The Great Lake is 25 miles from Deloraine, and from there one may drive along the Lake shore and down the southern slope to Hobart. At Hobart, where the W.I.A. is a very active body, one will find many VK7s spread over the whole district, and contacts should be quite easy. The distance back to Launceston from Hobart is 120 miles of good road. In passing, while in Hobart, be sure to drive to the top of Mt. Wellington with mobile gear, over 4,000 feet up, and view the t.v. activities. A couple of hours will cover the trip comfortably.

Of course there are lots of other places to go. The East Coast is magnificent for its beaches, and the West Coast is something of another world—140 inches of rain per year.

Now we have dealt with internal interest in Tasmania, but what about contact with other States. Well it isn't much over 200 miles from this coast to VK3 and across water at that. My list of contacts with mobile and portable VK3 and VK2 is quite a long one. Therefore, from here, one can expect to contact many VK3 and other States with comparatively low power.

For some months I used 8 watts and made dozens of contacts with VK2, 3 and 5.

So some final advice—bring the mobile and portable gear even at the expense of leaving the XYL behind.

Anchor it down firmly, if you intend to leave the main highways. A piece of strong cord with a weight on the end is useful to throw over a tree to raise the antenna, and there are lots of trees here.

The VK7 fraternity looks forward to seeing many Amateurs from other States, and will be pleased to furnish information.

—VK7MX, Devonport.

TROPOSPHERIC PROPAGATION AT V.H.F.

(Continued from Page 3)

with anticyclones during the colder months. A high such as this is worth watching at any time of the year. The dotted lines on Fig. 6b represent the sounding on the 20th and the solid lines that of the 21st. The graph of the 22nd was almost identical with the latter. On the 20th, at the leading edge of the high, there was a small temperature inversion between 4,200 and 5,000 feet averaging about 0.4°C. per 100 feet, and in the same layer the mixing ratio dropped about 0.35 g./kg. per 100 feet giving a total refraction a little less than required. On the 21st and 22nd the gradient had virtually disappeared, thus it must be assumed that the propagation on those evenings was due entirely to surface cooling. Propagation on the 20th was probably assisted by the same effect.

How About 288 Mc.?

There appears to be no reason why the information in this article should not apply with equal force to one metre with the possibility that ducting should be more frequent. With the increasing use of stabilised gear it should not be long before the distances covered will be comparable to those on two metres, with some paths, particularly over water, favouring the higher frequency. The first contact across Bass Strait on 288 Mc. cannot be far off. That is how it goes—there is always the challenge to improve the gear and extend the range. See you on v.h.f.?

ACKNOWLEDGMENT

The assistance of officers of the Commonwealth Bureau of Meteorology in Melbourne, particularly Messrs. Gibbs, Leake and Lloyd, in providing access to meteorological records is gratefully acknowledged.

Why So Few Entrants in the N.F.D. Contest?

The National Field Day Contest is probably one of the contests offering the best attraction to those who are keen lovers of the outdoors, those who have family responsibilities and those who just look forward to a "different" day by way of relaxation. And yet it is hardly patronised. There must be reasons for this and the Federal Executive, Federal Council and Federal Contest Committee are anxious to know what they are before giving it up.

Many efforts have been made to popularise this Contest with little success. The Federal Contest Committee have currently forwarded proposals for rule making which you should have an opportunity to read and criticise. The Federal Council is currently considering these proposals and your comments could be helpful in its decision. These are the proposed rules:—

PROPOSED RULES

Date of Contest: Saturday and Sunday, 13th and 14th February, 1960.

Duration: 1800 hours E.A.S.T. Saturday to 1800 hours E.A.S.T. Sunday.

1. There shall be three sections to the Contest:—

(a) Transmitting, Phone.
(b) Transmitting, C.w.
(c) Reception of Portable and Mobile Stations.

2. All Australian Amateurs may enter for the Contest. Mobile or portable stations shall be limited to an input of 25 watts to the final stage. This power shall not be derived from either private or public mains.

A portable or mobile station shall not be located within a radius of one mile from the home(s) of the operator(s), nor be situated in any occupied dwelling or building.

No apparatus shall be set up at the site selected earlier than 24 hours before the commencement of the Contest.

A portable or mobile station may be moved from one site to another during the Contest.

More than one transmitter may be used, and where there are multiple operators several bands may be used simultaneously, but in this case a separate log shall be submitted for each transmitter.

All Amateur bands may be used, but cross-band operation shall not be permitted.

3. Amateurs may enter for one or both transmitting sections.

4. One contact per station for phone and one for c.w. per band shall be permitted.

5. More than one operator may participate in the operation of a portable or mobile station provided that all operators are licenced Amateurs.

6. Entrants must operate within the terms of their licences and must observe the Regulations with regard to portable operation.

7. Serial numbers consisting of the RS or RST reports plus three figures beginning with any number between 001 and 100 and increasing by one for each successive contact shall be exchanged.

8. **Scoring:**

For contacts with portable or mobile stations outside entrant's own State	15 points
For contacts with portable or mobile stations within entrant's own State	10 „
For contacts with fixed stations outside entrant's own State	5 „
For contacts with fixed stations within entrant's own State	2 „

The following shall constitute call areas: VK1 (A.C.T.) and VK2 combined, VK3, VK4, VK5 (South Australia), VK5 (Northern Territory), VK6, VK7, and VK9.

9. **Logs**: All logs shall be set out under the following headings: Date/Time, Band, Emission, Call Sign, RST/Nr. Sent, RST/Nr. Rcd., Points Claimed. In addition there shall be a front sheet showing the following information: Name, Address, Call Sign, Section, Call Signs of other operators (if any), Location of Portable/Mobile Station from .....hrs. to .....hrs., from .....hrs. to .....hrs., etc. A brief description of the equipment used, bands used, points claimed.

Declaration: I hereby certify that I have operated in accordance with the Rules and spirit of the Contest.

Signed..... Date.....

10. The right is reserved to disqualify any entrant who, during the Contest has not observed the Regulations or who has consistently departed from the accepted code of operating ethics.

11. The decision of the Federal Contest Committee will be final, and no dispute will be entered into.

12. Certificates will be awarded to the highest scorer in each section in each State.

Receiving Section

The Rules shall be the same as for the transmitting Stations and is open to all Short Wave Listeners in the Commonwealth and Mandated Territories.

Logs shall take the same form as for transmitting sections, but will omit the serial number received. Logs must show the call sign of the station heard, the serial number sent by it, and the call sign of the station being worked.

Scoring will be on the same basis as for transmitting stations. It is not sufficient to log a station calling CQ.

A station heard may be logged only once for phone and once for c.w. for each band.

Certificates will be awarded for the highest scores in each State.

Address of Logs

All entries must be postmarked not later than **Saturday, 27th February, 1960**, and addressed to the Federal Contest Committee, W.I.A., **Box 371B, Hobart, Tasmania.**

COMMENTS

The Federal Contest Committee have issued the following comments:

It is felt that the time and duration might encourage camping, with several operators per station. Note that contacts with stations outside entrant's own State includes overseas contacts.

The number of sections has been reduced to three. In the 1959 Contest there were no entrants for the v.h.f. sections, and in any case the high number of sections for the relatively small number of entrants seemed rather ridiculous.

The number of certificates to be awarded has also been reduced for the same reason.

Open sections have been omitted as in our opinion they are a farce, anyway. Entrants can enter for either the phone section or the c.w. section, or both.

Omission.—In the case of contacts outside of VK it might be desirable to include a clause stating that no serial numbers need be exchanged, but a serial number entered in the log for such contacts.

★

There you have it . . . an opportuntiy to tell the Federal Council what is wrong with the Australian National Field Day Contest in comparison to the overseas events which are the most popular of contests. Write your comments direct to the Secretary, Federal Contest Committee, 22 Haig St., Lenah Valley, Hobart, Tasmania, to reach him by the third week of October.

BOOK REVIEWS

MAGNETIC SOUND RECORDING
By D. A. Snel

This new book from the Philips Technical Library covers the subject in a way which should prove of considerable value to all who own, use, or contemplate building magnetic recording equipment.

The first chapters give an introduction to sound and history of magnetic recording followed by magnetism and electricity and then to the process of magnetism and requirements for recording.

In turn, sections on drive mechanisms, tape and heads, amplifiers, microphones, and loudspeakers have been well covered with theory and practical drawings and illustrations.

The section on practical recording was found to be interesting due to the variety of uses and suggestions, and also on account of a previous embarrassing experience caused by a lack of some of this knowledge at the time.

Following chapters deal with stereophonic recording and playback, which will no doubt be a feature of future recorders, together with dictating equipment, magnetic sound for films, faultfinding and many other applications for magnetic recorders and recordists, all amply covered.

Having experienced some of the troubles contained in this book while building a tape recorder makes me appreciate the information, and it is felt that it will save many others from similar mistakes with consequent disappointment and expense.

From the point of expense, the price of 30/- Australian could save costly mistakes and pay for itself in the construction of a magnetic recorder and still be a very good reference in the technical library.

Available from Philips Electrical Industries Pty. Ltd., 69 Clarence St., Sydney.

MULTIVIBRATOR CIRCUITS
PRACTICAL ROBOT CIRCUITS

These books have been grouped together because they were written by the same author. The first one covers the theory of the multivibrator in all its many variations. The second, deals with the applications of these same circuits, in this case, to control a robot dog.

I do not expect there will be very many Hams who will build the electronic pooch, but all of us can benefit from the theory and practice described in these very inexpensive volumes.

Both volumes by A. H. Bruinsma from the Philips Technical Library. Australian prices: 13/- and £1/1/0 respectively.

RADIO ENGINEERING FORMULAE AND CALCULATIONS
By W. E. Pannett

The aim of this publication is to assist "those who wish to improve or revive their ability to cope with radio engineering problems". However, the only advantage of this book over similar volumes which list Radio Formulae is that it gives worked solutions to many examples, showing how one goes about solving such problems.

Nearly all aspects of Radio Engineering are covered. The section on Transmitters would be quite useful to Amateurs, in spite of its brevity. The treatment, however, is rather superficial, particularly in Example 1, where, in calculating drive power to the grid of a final amplifier (class not stated), the r.m.s. grid voltage is taken as average voltage.

The section on Transistors is very brief, and does not seem up to date as might be expected of a book published in 1959. For example, the list of basic Transistor Amplifier circuits is misleading in the way it classifies grounded-emitter types as suitable for audio frequencies only. Similarly, the current gain in this circuit is referred to as "alpha'", whereas modern convention refers to this usually as the "beta", the Beta Gain.

The list of classes of amplifiers, A1, A2, AB1, etc., is a useful feature in the section of Thermionic Amplifiers. The tables of power and voltage ratios to decibels, of frequency to wavelength, and the usual mathematical tables are quite useful, but others, such as the very handy L.C. Reactance vs. Frequency chart, are not included.

On the whole, the formulae and methods of calculating answers are well set out, but the treatment is sketchy (for example, horizontal dipoles are not mentioned in the section on Aerials and Propagation), so that it cannot replace the more comprehensive and authoritative texts such as Langford Smith and Terman.

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THE HAM

There are fools of every kind
And the most of them are blind
To the folly of the game that they pursue,
And they each and all declare
That their own peculiar fare
Is the finest in the world, "if you knew".

The Footy fiend loves mud,
Has the fever in his blood.
And the Punter to the Bookie gives his cash.
While the Cricketer will run
Up and down 'neath blazing sun,
And the Pugilists each other love to bash.

There's the bloke in dancing shoes
And the fellow who loves booze
While the Golfer hits a ball with many damns.
But the maddest of the crowd
Are the ones who talk aloud
When there's no one but themselves. They call 'em HAMS.

They sit beside their box
And enjoy their little talks
About voltages and frequencies and bands,
And they never go to bed
For they're funny in the head
With the knowledge that this sort of thing demands.

If you ask him which is greater,
Eight o seven or oscillator,
He will tell you you are widely off the beam,
That your relay and transformer
Are away to some place warmer
And your ohms and watts are only just a dream.

They have wires every-where
Even high up in the air,
But their hobby is the best of all, by far.
It makes a happy home
For they never care to roam
And their wives can always tell just where they are.

"HAM"SPEARE.

[The above was written by Mr. Jack Burrows, Snr., father of Jack Burrows, Jnr., VK6BU.—Editor.]

Proposals for a Mobile Receiver Without H.T.

H. F. RUCKERT,* VK2AOU

WE heard recently about the hybrid car radio which was made possible by the introduction of "special valves" which can work satisfactorily with 12 to 14 volts B+, and the audio power stage has to be transistorised. Even the short wave range up to 19 Mc. did show sufficient gain as demonstrated in one publication. If a car radio achieves μV. sensitivity at 19 Mc. there is a good chance that the same set up will work at least up to 30 Mc., and most likely also at 60 Mc. We may have to accept at v.h.f. a higher noise figure, resulting in reduced sensitivity, than would be possible to obtain with the full high tension voltage.

Looking closer at the data of the so-called special hybrid valves, one gets the impression that these valves are not so very special or new in design. We remember that the stage gain is the product of resonance resistance of the tuned circuits and of the dynamic gm. of the valve used. If we assume that the design and Q of the tuned circuits of r.f. and i.f. stages are conventional, we have only to see that the valves have a sufficient high gm. with the low B+ voltage of 12 to 14 volts.

The quickest way to get an answer and practical results, was to build a simple test circuit around a valve holder and an i.f. tuned circuit. With the signal generator attached to the input and a vacuum voltmeter to the output, the stage gain was easily measured. With the help of a five kilo-ohm potentiometer in the cathode lead and a 50 kilo-ohm potentiometer to adjust the screen voltage, the best working conditions were soon found. A compromise can be found where we get good gain, little stage gain variation with B+ voltage variations and a relatively wide range of output voltage with low distortions.

The test did show that useful gain can be achieved with valves which have at least a static gm. of 5 mA/V. at 150 to 250 volts B+; with a lower B+ voltage the remaining gm. is only 10 to 20% of the usually listed value.

The following valves were tested: EF50, 6AC7, 6AG5, 6AK5, 6AU6, 5847 (gm. = 11 mA/V.), 12AU6, Z77 (gm. = 9 mA/V.).

Since the operating frequency was 455 Kc., the v.h.f. properties of the more modern valves did not show up, and the valve with the highest gm. gave naturally the highest i.f. gain of 100 to 200 for the 6AC7, Z77 and 5847 valves. The valves with lower gm. of about 5 mA/V. at full B+ resulted in stage gains of 40 to 100. The usual receiver design considerations and these gain figures give us several hints how to plan the circuit, if we wish to use popular miniature valves only. The r.f. stages may be equipped with 6AK5 types. The same valve may be used for the mixer stage and oscillator, using grid one injection and a triode oscillator. 6BA6 valves may be used for the i.f. to make use of the remote cut-off curve these valves possess. To reduce the battery power consumption it may be advisable to use GE diodes to obtain the audio and a.v.c. voltage. A OC71 audio pre-amplifier transistor and a matched pair of OC72 transistors should be all that is required to drive a small loudspeaker.

There are several advantages:

Running the high gm. valves with such a low B+ voltage reduces greatly the difficulties to prevent take-off, and stable operation is easily achieved.

Two valves may be connected with their filaments in series to suit the 12 volt car battery.

There is no expensive, noisy and unreliable vibrator requiring also complex hash filters.

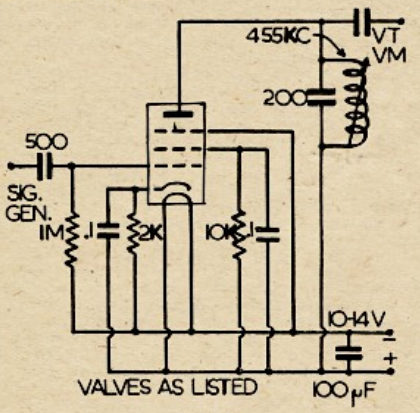

Fig. 1.
In the above circuit the B plus line should have been connected to earth.

The receiver will be very much smaller because there is no power supply taking up about 50% of the volume and even more of the weight of the usual car radio.

Low voltage components have less bulk too, so that all paper capacitors can be replaced by thin sheet ceramic HK (K factor 9000) units which have 0.05 to 0.1 μF. capacity at 40°C. These are discs with ¾" diameter.

The resistors used can be all of the one-tenth watt version, because extremely low loads occur due to the small voltage applied.

A receiver with five valves and three transistors would only represent a load to the 12 volt battery of 1.8 amp.

With the exception of the cathode bias resistor, the screen grid resistors and the use of audio transistors, there is no change in the circuit comparing standard receiver design. It is not advisable to use resistors in plate circuits because they would further reduce the B+ voltage, which would not only affect the gain but it would also reduce the input voltage which can be applied to the grid before distortions in the plate circuit occur.

The test circuit shows typical operating conditions for an i.f. or r.f. stage. It is advisable in every case to vary the cathode bias resistor between 500 and 5,000 ohms to find the best value for the valve used.

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SOMETHING DIFFERENT

For something non-technical and different for your book shelf, may I suggest Thomas H. Raddall's "The Nymph and the Lamp." This novel and classic, so aptly written, portrays the life of a wireless operator, based on a lonely strip of sand in the North Atlantic, and of the affairs of the heart that overtake him.

It will stir the blood and the imagination of all those who have ever pressed a key or sent a signal into the ether. It will, as he completes the pages, turn him with vision and appreciation to the woman who is in every man's life. —VK4SS.

50 Mc. W.A.S.

Call	Cer. No.	Add. Cntr.	Call	Cer. No.	Add. Cntr.
VK2WJ	13	4	VK2AEZ	10	1
VK3PG	5	3	VK3XA	11	1
VK2VW	9	3	VK3GM	12	1
VK4RY	2	2	VK3ACL	14	1
VK4HR	4	2	VK3ZD	16	1
VK5LC	1	1	VK2HO	17	1
VK6DW	3	1	VK2ABC	8	
VK3RR	6	1	VK2WH	15	
VK3HT	7	1			

D.X.C.C. LISTING

Listed below are the highest twelve members in each section. New members and those whose totals have been amended will also be shown.

PHONE

Call	Cer. No.	C'nt-ries	Call	Cer. No.	C'nt-ries
VK6RU	2	232	VK6KW	4	189
VK6MK	43	221	VK3BZ	3	176
VK4FJ	21	213	VK4RW	23	164
VK3WL	14	211	VK3EE	10	163
VK3ATN	26	204	VK9DB	31	161
VK4HR	12	192	VK4WF	16	160

New Members
VK2VV .. 46 103

C.W.

Call	Cer. No.	C'nt-ries	Call	Cer. No.	C'nt-ries
VK4FJ	29	248	VK3XU	48	213
VK3KB	10	245	VK3NC	19	206
VK3CX	26	240	VK3YL	39	203
VK3FH	15	226	VK5BY	45	202
VK3BZ	6	222	VK6RU	18	201
VK4HR	8	218	VK2EO	2	191

Amendments
VK6KW .. 40 113

OPEN

Call	Cer. No.	C'nt-ries	Call	Cer. No.	C'nt-ries
VK4FJ	32	251	VK6MK	74	225
VK2ACX	6	250	VK3XU	61	221
VK6RU	8	250	VK3HG	3	215
VK4HR	7	233	VK3JE	12	210
VK3BZ	4	231	VK3ATN	69	210
VK3WL	45	225	VK3NC	77	209

Amendments
VK6KW .. 13 205

* 25 Berrille Rd., Beverly Hills, N.S.W.

V H F

Frank P. O'Dwyer, VK3OF
190 Thomas Street,
Hampton, Vic.

The pressure of a 16-18 hour working day, seven days a week—leaves no time for Ham Radio. So this month it is my pleasure to hand the 50 Mc. note writing over to that ardent listener and DX correspondent, Mac Hilliard. His information and comments over the months have been of great aid.

50 MEGACYCLES

A nice interesting month with the return of DX both TE and Es, a letter about South African doings from ZE2JV, and information on XE from Lance 3AHL. Here is what I heard about 50 Mc. July 19, JAs reported by 3ZFM (near Horsham), signals peaking S9. July 20 at 1815, 4NG working VK3, band open for 15 minutes. 20th, VOSK heard by 3ALZ and 3CI at 1725, also weak JA sigs. VK5 also reported hearing JA. 26th, at 1240, VK4 and VK2 (north coast) working into VK3 and VK5 with excellent signals. Band folded at 1350. 4NG reported worked 9XK on 26th. Russ mentioned that he had worked KH6 the two previous evenings, also working JAs. 31st, VK5 reported very weak c.w. signals from a south east direction, wondered if they could have been from XE?

August 1, an excellent opening between 4NG and VK5. August 2, at 1345, VK4s worked into VK3, sigs. mostly patchy with peaks around S8. Only Brisbane gang heard at this time, they faded at 1430. At 1510 4NG came in at varying strengths up to S9. His sigs. faded at 1615. 4NG reported that JAs were coming in again every evening. August 9, JA worked for about 45 minutes in VK3 from 1715 with VOSK heard strongly the next two evenings.

LETTER FROM ZE

Now here is the letter from ZE: "Activity here is very low in spite of very good conditions. We had Ws in June, April and May, KR6 in April, and of course TE all night and every night January to April; ZS6 and ZS1 by Es and a few TE openings in June and July. The 70-75 Mc. signals I have been receiving from Cyprus and Beirut for eight months of the year for the last two years are only audible on the 72 Mc. three element yagi, although sometimes S9, I get nothing with either the 50 Mc. or 144 Mc. beam plugged in. The upper limit of TE is usually about 90 Mc. in the more favourable locations.

"At the height of this season the 144 Mc. band appeared open for periods of about half an hour. After three weeks testing with Chalky ZC4WH we contacted, what luck! It occurred very late in the night, 48 hours after violent sunspot activity, of course. I can offer you a tape recording, a programme edited suitable for broadcasting, if you would like to borrow a copy. It consists of recordings of commercial signals 30-75 Mc. and Amateur signals from South Africa as heard in ZC4. I am certainly on the look out for the VK boys. I continue to run an auto transmission whenever conditions appear promising. Anyone hearing it should net to the frequency of 50,040 kc. and call.—73, Roy, ZE2JV."

NOTES ON XE OPERATION

This information is from XE1DDD, who is also XE1PGW (mobile) and was formerly DJ2PG. He works for the Telefunken Company in Mexico. According to him (Gert) the only possible stations heard at the time of QSO between VK3ALZ/XE1FU would be XEs 1FU, 1PG, and 1QJ. Pancho 1QJ noticed the band opening and desperately called Gert, 1DDD, and Hank 1PG, but it was too late. The latter two had just worked LU and were caught out apparently. Freqs.: XE1DDD 50.01, XE1PG 50.2. XE1DDD uses a 6DL5 (EF95) in p.a. running 7 watts. Apparently it is a good v.h.f. tube. During his winter (our summer), he worked LUs, CE and an expedition to the Isle of Juan Fernandez (off the coast of Chile), and HC1FS the only 6 mx station in Ecuador. Other 50 Mc. stations in Mexico City are XE1PA, XE1PY (mobile 1PE), mobile about 100 miles south of the Lake of Teques Quitengo with a few watts and 12 elements.

XE1PFE only mobile at his week-end house, elevation 10,000 feet, but screened in the VK direction. Also active are XEs 1GY and 1FS. Others active at Tijuana on the American border are XEs 2AF, 2AI and 2WC. Apparently these stations have not yet been heard in Mexico City.

Now at last we have info on the 50.5 Mc. f.m. signal which has been heard on many occasions. It is a t.v. relay between the dead volcano Ixtaxihuatl on the Pass de Cortez and Popocatepetl at an altitude of about 12,000 ft. This is, of course, our pointer to XE openings. The XEs have been using the Peruvian I.G.Y. station just below 50 Mc. as their guide to southern openings much as we use HLKA on 49.6 Mc., as one to JA. During openings to North America, there is often f.m. telephone on 49.9 Mc., this may have been heard in VK. Only a few XE stations use c.w., the phone ticket is more readily available. XE1DDD and XE1PE both use c.w. Gert hopes that our c.w. band will not be swallowed up at Geneva.—Lance VK3AHL.

Another interesting letter came from Vern VK4LK, who tells of the prolific JA sigs. Further, he mentions the immediate success of the 144 Mc. link to Townsville when both he and 4ZAK went over to 11 el. long yagis. He finds signals consistent over every 24 hours on 144 Mc., whereas 50 Mc. over that path is very poor by comparison. He is looking forward to the return of Es when the boys will again be on tap, as far as he is concerned there is nothing more enjoyable than a first-class local opening for three or four hours.—Mac Hilliard.

NEW SOUTH WALES

At the meeting of the V.h.f. Group on 3/7/59 were 30 members to hear a lecture on General Transistor Application, by Harold 2AHH, who covered the subject very competently. He touched upon many points not known by the average Amateur and was very well received. A vote of thanks was moved by 2ASZ and carried by acclamation.

A motion was put forward by Dave 2AWZ to limit the speed outside built-up areas to 40 m.p.h. on all day events. It was decided by the committee in a later meeting that this would be a hard rule to regulate, but urged all members in all events to maintain strictly all road rules and safe driving practices to ensure no occurrence which may give the mobile Amateur a bad name in the eyes of the general public. Remember, a beam on a car really stands out!

A reminder is given to all participants in a mobile event, that any cancellation due to inclement weather, etc., must be announced by the fox at least one hour before the proposed starting time. In all hidden tx hunts, the fox must hide within eight air miles of the starting point, and, we hope, harder to find. In mobile hunts the speed of the fox must be held to 25 m.p.h. maximum.

Hidden Tx Hunt, 15/7/59, had most of the hounds really confused. Kevin 2ZCF was the fox and hid in the bush on the edge of a gorge at Hornsby. The only way in was to completely circle him and come in from the opposite direction. Those who tried to go direct found themselves several hundred feet below him in a maze of dead-end streets and a "tip." Ron 2ZBG with Alan 2RX were again first on the scene in 40 minutes, with 2ASZ 55 mins., and 2AWZ 65 mins. Following were 2OA-2ZAV, 2PM-2ZPM, 2ZFC-2ZAL, 2ZBB. Phil 2ZBX saved time by hiding with the fox. All hands tucked into supper and nattered far into the night. Our thanks to Kev.

Sydney v.h.f. activity has risen considerably in recent months with many new calls making themselves heard. Val 2ZDD (Woolahra), Gordon 2ZGW (Silverwater), Max 2ZMP and Howard 2ZHP (Waverley), Irwin 2ZEM (Auburn), Lance 2ZKP (Granville), Phil 2ZBW (Homebush), Tim 2ZTM (Mosman), Dennis 2ZPM (Castlecrag; whom I believe we are losing to the Navy soon), 2ZKO (Ryde) and others.

With the announcement of an award for the longest 2 mx contact during this year, talk is afoot regarding a DXpedition to Mt. Ebor and Mt. Gibraltar to attempt contact over the long week-end in October. Another possibility being discussed is a trip to Mt. Kosciusko with 80 watts.

Coming Lecture, Sept. meeting: 2ASZ on Command Rx's and 2BK on Voice Controlled Break-in. October meeting: Possibly on Antenna Systems for v.h.f. November meeting: Possibly a technical film night.

Coming Events, September: Watch V.h.f. broadcast for details. October 4: Blackall's Field Day. October 25: Blue Mntns. Field Day at Lawson with plenty of v.h.f. activity. Get your mobiles going, chaps, and see you there. —2ASZ.

VICTORIA

Due to pressure of work, Jock 3ZDG has relinquished the writing of the VK3 notes and yours truly, 3ZGP, has taken over. With your continued support I hope to keep the high standard of your previous scribe. Thanks, Jock, for a fine spell of duty, always full of news and items of interest.

V.h.f. Meeting, 15th July: Approx. 25 were in attendance and the business was t.v.i. Much discussion arose on this subject after Alan 3AEL informed the meeting that VK3 Council has decided to form a committee to deal with t.v.i. and b.c.i. related to the Amateur. It will consist of five of whom three will represent the V.h.f. Group. The three elected from the Group were John 3ZFO, Kel 3ZFQ and self 3ZGP. Together with two to be elected by Council, the committee should begin to function at an early date. Initially we will compile a list of all available references on the subject and hope to have this material available to members. Technical assistance will also be available on a co-operative basis so that all problems will be handled to the satisfaction of all concerned—the Amateur, the complainant, and the Department. Further news will be released via 3WI and "Amateur Radio."

Bands Activity: In the short time at my disposal the following items have some significance:

6 Metres: This band is certainly providing some interesting activity for this time of the year. Two quite good openings to VK4 and VK2 have occurred on Sundays. Just after 1200 hours on July 26, VK4ZAX and VK2ATS crashed through with terrific signals. Together with other VK4s the local gang quickly recovered from their surprise and had themselves some fine QSOs. Sunday, 2nd August, the VK4 gang were in again at lunch time, though at this QTH not as well as previous Sunday. Heard VK2ZER in there also. Then later in the afternoon Bob VK4NG had a reappearance for a few to work. So who knows what will happen from day to day, pays to watch what is otherwise a dead band.

Sid 3CI has been putting good signals in Melbourne from his new QTH. Some new signals around the city were Wally 3AHZ (Sth. Oakleigh), 3ZGF whom I haven't worked as yet. David 3OD has moved QTH from Preston to Heidelberg, company for 3ZCO and 3QO.

John 3ZFO v.f.o'ing around band now. Ken 3ZDR re-building, but listening. Keith 3ZED and Jim 3ZGW still missing and waging battles against t.v.i. troubles.

Hope the DX this season tunes up out of the QRM down the low end and works some in the clear; stations above 50.5: ZHC, ZHG, ZGP, ZCO, ZBN and others—enjoy QRM-free QSOs!!

Sorry I can't find much about 2 or 1 mx. Haven't been on the job long enough yet on 1 mx. 3ZCG has been working again. John 3ZHG has gear and had a QSO with 3QO. Gerry 3ZBN building a new converter and it is rumoured that 3AZY is building gear for the band.

See you next month chaps.—3ZGP.

QUEENSLAND

July 10 at 1855 Jas 1, 2, 4, 7 and 9 came in for an hour. 4HD worked a couple and Jack 4JO had a scratchy QSO with JA4IO. No DX from then till 18th when brief JA signals heard at Elimbah about 1945.

4HD and 4XJ have had over 100 QSOs. 4ZBF gone QRT on 50 Mc. for keeps in favour of t.v. That's one way of solving t.v.i., Alan!

Bit of local activity on 50 Mc.: 4ZAA, 4ZBZ, 4ZBT, 4ZAX, 4ZBL and 4ZBY still keeping their rigs in working order. 4ZBI is usually around most nights. Believe Frank 4ZCM has purchased 4ZBF's gear; it's good gear, Frank. John 4PU still being heard and worked by Max 4HD and 4ZBI, but doesn't get into Brisbane too often. Bill 4WD re-building final, has t.v.i., also Max 4HD taking precautions. 4ZAT has distinction of most easterly 6 mx station in Australia. Still no sign of Len 4ZBS —must be using double suppressed carrier and sidebands! Hurry up, Len.

Bob 4NG was out at Jundah when the Aurora was on and no 6 mx gear—wouldn't it? Max 4HD worked JA2SE, on c.w. on 19th about 1700 hours, also 4NG was heard in JA. Bruce 4ZBD seems certain of QSYing to 80 metres; sat for c.w. and hopes. Beware, b.c.i. on 80, Bruce! JAs heard on 23rd between 1800-1930—JAs 1, 4 and 9. 4NG having his share, also the T'ville gang. 4ZBL seems a bit of a "poet," how did you like it Neddy (4ZBJ).

Opening to VK3 on 26th, around 1200-1400, heard Peter 3ZDP and 7ZAL, as I came in on the tail as usual.

Geo 4GG earbashes Chas 4CU nightly—seems as if 4ZBI has an earbashing rival!

A new call sign on band, Dick 4ZCK. Welcome to 50 Mc. and thanks for contact. Dick hopes to be on with 60 watts very soon. 4ZBI finally has had a couple of good contacts with Ron 4ZBZ. Max 4HD heard working JAs at end of month and dishing out S9 reports—but

can't hear them here. Max did hear 4NG and 4ZAZ's carrier at 1915, Sunday 26th.

2 Metres: Lionel 4DR was in contact with Mick 4ZAA one evening, working cross band 2 and 6 mx. Quite a bit of activity on 2 and 1 mx in Brisbane. Even 4ZBI up amongst the trees thinking that way!—4ZBI.

SOUTH AUSTRALIA

Activity on 288 Mc. has slowed down a little during the last month. Main signals heard from this location are 5JS, 5ZCL, 5ZDJ, 5ZGX, and 5TN. John 5ZBA will be in VK6 land when these notes go to press. John has been hunting up some portable 288 Mc. gear for use over there and I hope he was successful; give all the VK6 boys our best wishes, John. Whether Al 5ZCR has a contact at Pine Lodge (ADS7's location) or not, I'm not quite sure, but he promises 240v. power for our 288 Mc. stabilised gear that can be used to work from the Mount to VK3 land. Go to it boys, here's your chance.

Information for VK3 boys on 144 Mc. is that we have Rodney 5ZCD living at Bordertown using a Geloso. Rodney listens on 3.5 Mc. and 7 Mc. as well, so suggest you try crossband with him. At present he is on low power but intends to stoke up an 829B.

Now for those boys who want the Worked All States on 50 Mc. award. Get ready for your chance. VK5 is proud to present you with that chance. John 5ZDL will be leaving for Darwin in October; he will be taking with him mobile gear running 80w. John will be on relieving duty for three months, but hasn't indicated whether he will QSL from there or his home address.

I have further information about Reg 5QR's s.s.b. effort; he used the phasing system on low power with good results, but is now building a xtal lattice system. Reg claims that the gremlins are working against him for after grinding three rocks and getting then spot on, the fourth came to disaster when it slipped from his fingers. After cutting another slab and carefully grinding it, Reg found it jumping between two frequencies. What luck, guess you've got the fourth one OK now Reg.

Brian 5ZCO using a 5763, is new to the band, not too strong at the moment, but should do better when he has a beam. Welcome, Brian. Bevan 5ZCS has a strong signal here but his modulation is well down. Hughie 5AV has been very active during the last fortnight from portable locations. Others heard on the band are Keith 5MT, Col 5RO, Neil 5ZBH, John 5ZDJ, Col 5ZDB and Gordon 5XU. Al 5ZCR's beam is down at last, for alterations, so he claims. According to some chaps I know this is not correct; they claim that the chewing gum came unstuck during the big winds.

Barry 5ZBZ and Graham 5ZAP still tearing around with their mobile rigs. Graham claiming a measured 4 watts in the antenna. I hope to join you shortly boys, I have just re-built the mobile gear using screen modulation. The power supply is the next item.—5ZAW.

NORTHERN TERRITORY

Here commence the monthly notes concerning v.h.f. in the Northern Territory. Previously I was 4ZBW operating from Townsville on 6 and 2 mx. Now, after my transfer to R.A.A.F. Darwin, the call is VK5ZBW. Some information for those W.A.S. enthusiasts.

At the moment a power supply and converter are under priority construction, much of my gear having been misplaced in transit. I will be here for at least 15 months, operating 6 mx for as long as we hold the band. The rig is 7C5 osc., 7C5 doubler, 2E26 amp. running approx. 15 watts into (I hope) a 4 el. yagi. A high power final was under construction at Townsville, and will eventually be finished here. Hours of operation will mainly be: 5.30 p.m. Darwin time, until the band goes out, each night of the week with the exception of Wednesday, Friday and Sunday, as I work in the projection box at the R.A.A.F. cinema between 7 and 11 p.m. However, after 11 p.m., I will be on the band, naturally enough. All things going as hoped, I should be on the air by August 8, at the very latest, depending now on some parts I have ordered from Sydney. Do hope to be able to talk some of the local boys into coming up on 6 mx also.—5ZBW.

We all acclaim Brian's enthusiasm; may he provide the gang with many contacts and may all good DX come his way.—3OF.

PAPUA-NEW GUINEA

On April 25, 3AHL heard 9XK but Russ went back to work ZL3FL and ZL3CT, 0940-55. At 1010 Russ heard VK6VF (beacon) with his beam on ZL, no increase in signal strength on a direct bearing. Same day, 2200-2100, he worked JA and KA1.

On April 30, KH6 and JA. May 1, JA1, 2, 4, 0. May 2, VK6BE, 6BO at 1034. Russ has worked KR6 and VS6CJ several times and has had 63 KH6 contacts plus about 300 JA QSOs this year. The 11,000 volt transformer nearby still gives him very bad QRM.

The only JA ever heard by him in full daylight was JA8BY during the Ross Hull Contest. Russ will be on 50 Mc. as often as possible until the end of the year when he will be coming south on leave.—3AHL.

AMATEUR TELEVISION TRANSMITTING

An A.T. Convention was held at Geelong the week-end July 19. As far as is known, this was the first A.T. Convention held in Australia. Charlie 3AAK and Geoff 3AUX brought Eric 6EC down from Melbourne with them. Eric will be remembered from his excellent series on "Amateur Television" in "Amateur Radio."

After the morning session the visitors had lunch at Dick 3ABK's place and inspected the shack. The afternoon session was again held at Bill 3BU's shack with 3ABK, 3ALG and Fred's son David present; Peter 3ZAV also called in. Charlie had his flying spot scanner on show, also his 288 Mc. converter. Geoff had 3.5 and 288 Mc. gear in his car and some mobile contacts were made. Eric described, with the aid of some very good photos, his t.v. tx which uses some 300 valves. He was kept busy answering questions most of the day. Lecture tapes from the British Amateur T.V. Club were run. Anyone interested in A.T.V. should contact 3AAK, 3AUX or 3BU. Bill 3BU has the tapes and is on 7.1 Mc. most days at 1230 and 1800, Sunday nights at 2000 on 3550 Kc.—3BU.

S W L

Maurice Cox, WIA-L3055
Flat 1, 37 Boyd Crescent,
Olympic Village, Heidelberg,
N.23, Victoria.

Hi fellas! Here is your scribe once more with the news and doings of the Short Wave Listeners of Australia. Hope you are all well and your ears have been glued to your rx's these cold winter nights.

In the last month or so I have had some very nice letters sent to me and I want to thank all those who have written to me Now here is the first one from BERS1002, Don Grantley, of Spring Valley, Holbrook, VK2-land, he writes:—

"Main object in writing to you is, apart from introducing self, is to ascertain just what help I can give you in writing the page. As you know, I always sent a bit of dope on to Ian when he had it, and I am only too pleased to do the same for you. However, I would like to know just the type of thing you want, personal news is out as far as I am concerned, unless of course it is something out of the ordinary, but I do gather a lot of s.w.l. information from here and there, from other s.w.l. groups in other countries, and of course you can have the doings of the Albury group.

"Very pleased with your first effort at our page, and I do trust that you have no trouble maintaining it at the high standard which you have set. Very interesting, this VK3 challenge re the R.D. Contest. Ian Thomas feeling a little cheeky? Seriously though Maurie, I like to see these challenges in the contests, and I do hope that it is a great success for all concerned this year."

Thanks Don for your letter, by now you would have received my letter. Hope to hear from you again soon.

The next letter is from George Glendinning and he hails from Mackay, VK4-land and he writes:—

"I have read your first notes in "A.R." 7/59 and I wish you all the best of luck. I am at present studying for my licence by correspondence with W.I.A. I am a very active s.w.l. I do not think there are any s.w.l. clubs in this area, if there are I would appreciate it if you could help me locate same. If there are not, could you give me any guidance in forming same? I will be only too happy to forward any s.w.b.c. information I receive or hear."

Well s.w.l'ers here we have a letter from the "Cinderella State," hi, and they write as follows:—

"Fortunately, we see by your notes that Ian is still interested in s.w.l'ing and that you are in contact with him. This will save us a great deal of typing as he can put you right on the track as regards our efforts to get this group working in W.A. You probably have your own ideas as to how to run the s.w.l. column and anything that we can do to help you in that regard, we will be more than willing to do. Looking forward with a special interest to hearing from you personally, or at least, looking forward with interest to the next copy of 'A.R.' Remember, W.A. is the 'Cinderella State' and any little thing that you could possibly do to help us over here, as a group, to obtain the same sort of official recognition and privileges which you apparently enjoy in the Eastern States, we would be more than grateful for your help in that regard."

With regret we announce the passing of WIA-L6016, W. D. Brennan, late of 34 Kitchener Road, Merredin. He unfortunately died from peritonitis at the early age of 36, leaving a wife and three young daughters, and had just completed the Q Plus 17 inch set and also R. & H. 5 inch job, and so naturally he was looking forward to advent of t.v. in W.A.

S.W.L. OF MONTH

Re your s.w.l. of the month, you've got it, boy, herewith!

Mrs. R. S. Hardwick, of Rivervale, a close suburb of Perth, W.A. Age—the usual age of a grandma of 10 months standing, did operate a 9 valve, 7 waveband A.W.A. rx, in between working from 9 till 5 at the local Affectionate Diseases Hospital (in other words, King Edward Memorial Hospital), W.A's. big maternity hospital, as a receptionist and booking-in clerk to all infanticipating mothers, and now finds herself knocking off work to carry bricks, such as typing the OM's reports of reception and carrying on the work as honorary secretary of the W.A. s.w.l. group. She carries the following imposing list of figures and letters after her name: New Zealand DX Radio Assoc.—2740; Radio Society of Western Australia—231.

And now we follow up with Mr. F. W. L. Hardwick, of the same address. He operates a converted AR8 and is in the very fortunate position of not having to worry about his correspondence once he has succeeded in tying his XYL down to the typewriter. His interest in radio dates back to ante-deluvian times. In fact his first recollection of wireless is trying to pick up morse stations long before broadcasting was even invented, with equipment, which if he remembers rightly, consisted of a piece of carbon from a pencil resting on the edges of two razor blades, sunk in a piece of wood, a pair of headphones, a torch battery and a coil of wire on a 2-inch former with a sliding contact on top. From there he graduated to the crystal and ducom plug and has very vivid recollections of a lot of blown fuses in friends' homes. He has his hands full at the moment in between times of earning a crust as a spring-smith, what with cooking, DX'ing and being President of the S.w.l. Group. His numbers are: N.Z. DX Radio Assoc.—2709; Radio Society of W.A.—225; and WIA-L6001.

VK3 S.W.L. GROUP

Last meeting of the S.w.l. Group of the Victorian Division comprised a visit to the shack of VK3YQ. Five members of the Group had a most enjoyable evening. When we arrived, Keith was in contact with VK5VR. Michael and myself had words with him, the others being mike shy. Contact was a bit difficult at the time due to QSB and QRM.

Keith then showed us his gear starting with the 40 mx dipole, then the tx and rx—all home-brew. Then he showed us his Heathkit 2 mx and 6 mx converters which run into a Command rx. We also saw a very nice valve voltmeter, a Bendix frequency meter, and a few other items of interest. We then adjourned to inside where supper was provided by Mrs. Rojet.

Keith also showed us his other hobby of bookbinding, even though only a ham at it, it was very good. We left at 11.15 p.m. after a most enjoyable evening and thank-you to him.

NEWS AND NOTES

Don Grantley won't be entering the R.D. Contest but back him in the B.E.R.S. Contest in January. He sat for his ticket and passed regs. and morse.

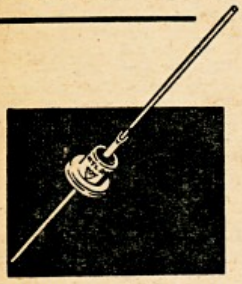
9G1BQ on 20 metre s.s.b. wants reports. He QSLs 100 per cent. Likewise ZS6AIA on 28 Mc. wants reports and 100 per cent. QSL.

Ian Thomas, over the last 12 months, has heard only 416 VK stations. He says that after all his figuring out, there are only one-sixth of the Australian Hams on. He has commenced c.w. classes.

Well, fellas, I think I had better ring down the curtain for this month. Hope to hear from you all soon.

THE WARBURTON FRANKI PAGE

WORLD FAMOUS INTERNATIONAL RECTIFIERS



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Q of 1,000 plus at 1 Megacycle. Offering:—

- **Low Power Requirements.**
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HIGH Q—WIDE CAPACITANCE RANGE

A practical series of new components; capacitors whose capacitance is determined by the applied D.C. voltage. The Q is high, up to 1,000, and the capacity range great. For the first time circuits can be tuned by electrical rather than mechanical methods. The new concept opens up a whole domain of useful applications—allowing in every instance circuit simplification, plus reduction in space and weight. Circuits designed around International silicon capacitors make remote tuning practical. Automatic frequency controls, modulators, automatic gain controls, and band-pass filters become smaller, lighter and simpler.

FOR TECHNICAL SPECIFICATIONS—WRITE FOR BULLETIN SR-205.

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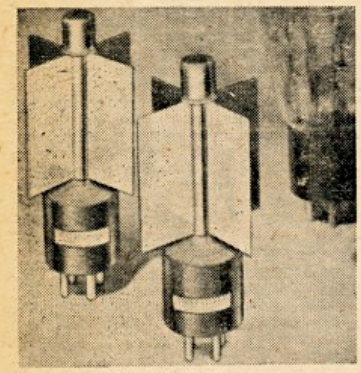
SUPPLIED WITHIN 3 DAYS. ● **Surprisingly competitive prices!**



High Voltage Silicon Tube Replacement Rectifiers, Type ST-7

250 mA. at 6,400 P.I.V. Designed to replace Type 866 Mercury Vapour Rectifier Tubes in Broadcast, Airline, Police and Other Communication Applications.

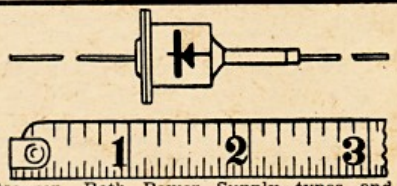
These rectifiers are specifically designed to supplant Type 866 tubes where the superior characteristics of silicon (no warm-up time, extremely long life, high temperature operation, minimum heat generation, rugged, compact package) are desired. They offer two-thirds reduction in space and weigh less than 1/16 of equivalent tube circuitry. In addition to the 866 tube, these units will also replace tube types 3096, 3572, CV32, WT262, 3B25, 3B27 and 3B28 (in all applications where applied peak inverse voltage does not exceed 6,400 volts).

FOR TECHNICAL SPECIFICATIONS—WRITE FOR BULLETIN SR-209.

300 mA.

SILICON POWER DIODES

Pigtail Mounted—Style S



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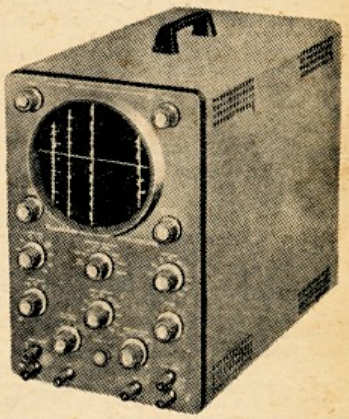

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12½% S.T.	for 12 months.

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D X

John C. Pinnell, VK2ZR
15 Summit Avenue,
Earlwood, N.S.W.
Phone: UW 4248.

Conditions over the past few weeks have been very changeable; poor conditions in the early part of June gradually became worse until about the middle of the month when a big sunspot disturbance "blacked out" all radio for some hours. Cable communications were also disrupted. As was to be expected, after a blackout, signals built up fairly quickly and by late July and early August all continents were available at various times of the day. Europe was excellent on 14 Mc. from 2030z to 2200z each morning, and again during the afternoon from as early as 0430z to 0900z. On some nights Africa was coming through around 0700 to 1000z on 21 Mc.

Looking back through my log I notice that conditions were very good about this time last year and for several weeks to follow on both 14 and 21 Mc. If history repeats itself, lots of DX should be worked from now on. Perhaps the "big sunspot" years are slipping too far behind us and things may not be quite as good.

Some big pile-ups were noticed at times when a "rare one" came on. PX1PF caused a real flutter on more than one occasion. His signals were fairly good to copy in Sydney though not over strong, however I missed him.

Reports from a wider area of Australia would be appreciated. How about it fellows, especially in VK6-7 and 9.

NEWS AND NOTES

PX1PF, Andorra, put a strong signal into VK-land during latter part of July.

VE3EGD hopes to be operating in Palestine during September, possibly using the same call sign as before—VE3EGD/ZC6.

ZE5JJ will be doing a round trip on s.s.b. to VQ2, CR7, ZS7, ZS8, ZS9 and perhaps other places. He should be under way by the time you read these notes.

VP2VA is a new one on Tortola, British Virgin Islands. The operator, Ro, seems very nervous and uncertain, but he is eager, and will learn the DX routine quickly. His XYL is second op. A third license should be issued soon which should add up to some real activity from this rare spot.

EA0AC is active on 14305 Kc. s.s.b. from Spanish Guinea. Operates from 15-1600 GMT every day, from 15-1700 Saturdays, and 07-0800 Wednesdays and Saturdays.

VQ3PBD, Tanganyika, is back on 10 metre phone again after several weeks holiday in England.

ZS5AM is planning a DXing holiday in ZS8, Basutoland.

ZD9AC, Nick Mayer, is expected on 20 metre c.w. and a.m. soon. There is no airmail service to Tristan Da Cunha and with shipping schedules it takes at least three months for cards to reach this spot.

VS9OM will end his Sultanate of Oman tour of duty late in November.

VK9AD will be leaving Norfolk Island, 24th October. There appears to be little chance of another Ham going to the island for some years to come.

W4WVB is going to Korea and expects to open up as an HL9 about the middle of September. He doesn't care for phone and will operate mostly on 20 metre c.w., and occasionally on 15 metres.

Cook Island.—The Rarotonga Amateur Radio Club has just been formed and its club station will regularly work 80, 40 and 10 metres.

The new prefix for China is **BY**, and BY1AC and BY4CW have been heard between 1100z and 1200z on 14 Mc. c.w. They have never been heard to make a contact, so evidently they are restricted to operations within the iron curtain.

VK0CC, of Macquarie Island, gets so few replies to his s.s.b. that he has decided to work mainly on c.w.

---

* Call signs and prefixes worked.
z zero time—GMT.

YK1AT is again active on c.w. on 14 Mc. and phone on 21 Mc. His name, Bohous, is not to be confused with Bohuos **JT1AB**—they are two separate operators.

ZS6ATA and a group of other South African operators are planning a long trip to Madagascar and associated islands in five or six months time. Kerguelon and Amsterdam will not be visited.

VS4JT will be returning to Brunei in the near future. His call may again be VS4JT/VS5.

AC3SQ is now AC5SQ in Bhutan; he is operating phone on 14 Mc.

CR8SM is now operating phone on 14130 Kc. from Goa, Portuguese India.

CO2QH/4 is active from the Isle of Pines about 100 miles south of Cuban mainland. It is hoped that this rare spot will be given new country DXCC status. This is the first Amateur activity from there in seven years.

W0AIW should be operating from the Seychelles by now as VQ9ERR.

HK7AB is active from Colombia on s.s.b.

Nepal.—9N1AA and 9N1AB have received their licenses and each expect to use 1kw. rigs on phone and c.w. ZP5IB, currently in Nepal, has not received his license yet.

VS6EE is now in British North Borneo and expects to get on the air with 15 watts c.w.

ACTIVITIES

3.5 Mc. C.w.—3AKN: DL0OG/MM*, ZLs 1, 2, 3, 4*, VK9XK*, W4VNE*. **L2022:** Ws, DJ, ZLs. **L3039:** VK9XU, 9RO, W4VNE, 7ZVY, JA8JS, 9DJ, DL3OG/MM.

3.5 Mc. Phone.—L2022: VK9AD. **L3065:** ZL-3BA, 4OD.

7 Mc. C.w.—2AMB: HC4IF, KL7CTG. **2QL:** UO5AA, UQ4AQ, UP2NM, UI8KAA, DJ4DA, DMs, Gs, UA1s, UA9s. **3AKN:** JA1CQ/MM*, OZ4LP/MM*, W6YMO*, W0VXO*, F1JT, G3-KLQ, UA1DZ, 4FO, YO5LE, YU3OP, 4BN, DL6BQ, 0BR, SP6AAT, 6QC, PY1OM, OA4FM, CE2DZ, JAs. **L2022:** DU7SV, W/Ks, G3GFG, OK1NH, DJ6SX, UA6UL. **L3039:** JA2UJ, 8GU, 6ZU, I1CUV, SP2PE, 3CJ, YO7DZ, 3JF, OZ-3GW, UA3KAB, Ws. **BERS195:** CR6CS, DJ-1SU, DU7SV, EA2EY, F9MS, G3KLM, GW-3IEM, HA5KFR, I1MQ, KL7FAR, OH1UG, OK-3QN, ON4JB, OZ4H, SM7TQ, SP8CK, UA3KAH, 9VB, UB5IF, UC2WP, UO5AA, UQ2KAN, VK-9AU, VR2DA, 2DK, VS1CN, YO6KBA, YU3DR, VQ4AQ, FK, CQ, ZE2KL, 4JO, 8JW, 9M2FS. Has listed about 300 Europeans alone for the month.

7 Mc. Phone.—2AMB: VR2DC, 2DF.

14 Mc. C.w.—2AMB: EI9Y*, HA8KWG*, HA0HN*, KC6AT* (Ponape), PA0RLF*, VE-8CG*, BV1US, FF8BZ, KV4BO, KW6CQ, XW-8AI, ZK2AB, 4S7FR. **2QL:** DU1PAR*, FF8BZ*, JZ0DA*, KC6ZZ*, PX1PF*, ZD1FG*, CN2BK, EA8CG, FY7YF, OY7ML, YJ1DL. **2ZR:** DJ-3VY*, DM2AZM*, DL6CL*, DU1DR*, EI9Y*, F8DF*, G6RH*, I1MQ*, HA8WW*, OE3AT*, OH1PX*, OK1VE*, ON4YN*, OZ7GC*, PA0QM*, SM7AJR*, SP2DX*, UA1DZ*, 3FH*, 6UI*, 0SA*, YO3FN*, YU2HA*. **4DO:** HC4IE*, JAs*, W/Ks*, KH6s*, KV4AA*, LZ1KBA*, VE7s*, UA-1BI, 3HI, 0KJV, UB5UX, PY2CK, CR9AH, EA9IA/3GF, XW8AI, JA0AQ. **L2022:** UI8KBA, HC4IE, CR9AH, KL7AL. **BERS195:** CR9AH, CX5CO, FB8XX, FF8BZ, FK8AW, HC1HM, HR1MM, HS1VPT, JZ0DA, K6QPG/KW6, KM-6BI, MP4BCU, TI2WD, VK9AD, VK0CC, VR-1BB, 2DA, VP9DK, YK1AT, ZK1BG, YV3BT, 4S7FJ, 9M2DX, JA3API/MM, K6OFD/MM.

14 Mc. Phone.—2AMB: EA3JL*, ON4LJ*, PJ2CE*, YV5ADQ*, XE1DT*, BV1US, FO8AX, ZK2AB, KR6LP, 9M2DQ. **3AOM:** CN8LE*, F9NN*, G2PU*, KL7CZW*, VEs 3VU*, 3BWY*, 6BV*, 6YE*, 7AGR*, 7ALR*, 7APL*, 7JB*, 7TR*, 8DX*, 8DD*, VR2CC*, VR2DK*, VR2DO*, VR2DP*, XE1BBN*, XE1UV*. **4DO:** W/Ks*, KH6s*, PY4TK*, YV5ADQ*, VEs 3BHS*, 3BMB* 8SO*, LU2HAE. **L2001:** Ws 1BCR, 2BQM, BZM, BM, 3AEV, 4DPI, HOI, 8HRU, RWZ, 9RQO, K4HTB, K9EWL, KR6CP, ZL2OP, 9M2DQ. **L2022:** VS1AY. S.s.b. VK0CC, VK9AD. **L2048:** W1BEK (YL), W7GBY, W7ADS, W8VDJ, W9-QPQ, KH6ME, KL7WAI, KW6CGA, VE7ALE, VE7TR, VE3VU, XE2KW. **L3065:** KH6s BKR, BWO, HQ, KH, ME, OR, VEs 5FN, 5LM, 6HQ, 7AGR, 7ALR, 7APL/7, 8CG, KLs AHP, CLA, FBA, KR6HE, KZ5PA/KZ5, FK8AU, KW6CJ, W6MQO/MM, All W districts.

21 Mc. C.w.—2ZR: DL7IO*, UB5JX*, YO-3VU*, YU3BH*, XE0WYC*, ZS6APQ*, WNs*, **4DO:** W/Ks*, KH6s*, FK8AI*, KP4AKI*, UB-5JX*, VE2LI/2*, ZC4CH*, CO2SI, TI2CMF, WV2CSH/MM*. **L2022:** Gs, JA4HM.

21 Mc. Phone.—2AMB: VP9G. **4DO:** W/Ks*, KH6s*, OA9B, XE2DO. **L2001:** VKs. **L2022:** JZ0DA. **L3065:** ZL1AHA, W6ZEM.

QSLs RECEIVED

2AMB: EA8CG, FQ8HA, HC1HL, HK5CR, CN8LE, GC2FMV, ET2KY, CR7AO, KB6BH, PJ2CE, PY9EJ, JZ0DA, KL7CKO, VR1B, VE-8PB, YS1MS, YS2SA, PY2EJ, ZD1FG, ZE6JA, ZE8JJ, YVOAB, XE1DT, VE8PB. **2QL:** CR-9AH, LU1BA, UA0OM (7 Mc.), VP9CY, YJ-1DL, ZE8JJ. **3AOM:** CX2CO, HC1FG, HK7LX, OA4FP, TI2WD, YS1MS. **BERS195:** OR4RW, FA8XS, TF3SG, TI2WD, UC2KAD, UI8KBF, UQ2CG, VK9GK, ZE7JO, 4S7FJ, 4X4KK, HB-9QP/MM. **L2022:** VQ2GW.

It seems that the VK cards from FO8AT, the Clipperton Island DXpedition, have gone astray. Anyone missing out let VK2QL or W8JIN have full QSO details and they will see what can be done. (2QL).

ADDRESSES

EA0AF—P.O. Box 195, Santa Isabel de Fernando, Poo Spanish Guinea.
CR4AX—Sal Island, Cape Verde Islands; or W2CTN.
ZB2R—Via ZB2I, E. D. Wills, No. 9, Naval Hospital Road, Gibraltar.
CP3CN—P.O. Box 641, Oruro, Bolivia.
FR7ZD—Guy Hoarav, Tampon, Reunion Island.
ZD2CKH—P.O. Box 38, Jos, Nigeria.
EL2Z—P.O. Box 270, Monrovia, Liberia.
VP7CA—Detachment India, Construction Bn. 7, F.P.O., New York.
TG9CL—P.O. Box 689, Guatemala City, Guatemala.
OQ5JW—P.O. Box 27, Luputa, Belgian Congo.
PZ1AH—Andre Soeperman, C/o. Radio dienst, Zandery Airport, Paramaribo, Surinam.
TG0AA—P.O. Box 115, Guatemala City, Guatemala.
TA3USB—Military Amateur System, Halfsee, A.P.O. 224 or A.P.O. 246, New York.
VP9CD—Via W3HQO.
F2CB/FC—Via Caserne Battesti, Ajaccio, Corsica.
YK1AT—Via W2CTN.
CR9AM—Box 111, Macau.
SU1MS—Try W6QNA.
VP4KR—Ken Robertson, 70 St. James St., San Fernando Trinidad, B.W.I.
AL5RR—Gerd, Foreign Legion Touggourt, Saraha, Algeria.
VP9ET—P.O. Box 275, Hamilton, Bermuda.
HH2CC—Box 235, Port-au-Prince, Haiti.
HS1E—Chuck, C/o. A.P.O. 146, San Francisco, California.
ZC4JC and **ZC4RK**—QSL via R.S.G.B.
FF8BZ—Box 6089, Dakar, French West Africa.
FF8CC—Box 2036, Dakar, French West Africa.
YN1MN—Box 1344, Managua, Nicaragua.
TF4WDH—Frank, M.A.R.S., A.P.O. 81, New York.
TF2WDX—George, 932nd A.C. & W. Sq., A.P.O. 81, New York.
VP1GLG—Gregory C. La Grenade, Box 271, Belize, British Honduras.
VE8DX and **VE8DD**—C/o. Box 2330, Edmonton Alberta, Canada (3AOM).
HC1FG—P.O. Box 2799, Quito Ecuador (3AOM).
VR2DO—P.O. Box 270, Suva.
4S7FJ—F./Sgt. Frank Johnstone, R.A.F., Katunyake, Ceylon.
FA8XS—Marcel Salvat, Post Radio, El Golea Sahara, Algeria.

I acknowledge the assistance given by the following: Don Cheser, W4KVX, Burlington, Kentucky, U.S.A., for use of his DX magazine via 2QL. 2AMB whose activities were rather limited a few weeks back but is on the job again this month. 2QL keeps me posted with latest news and QSL activities. 3AKN has broken the ice on both 40 and 80 metres; his list is a good indication of DX on these bands. 3AOM says, "The most noticeable thing about my log for the past few weeks is the number of VE stations on phone (list given in Activities). As far as I am concerned it seems rather remarkable the way the VEs have been coming in." Hope you had a good trip George. 4DO, your notes appreciated Hal, have a good holiday in Brisbane. L2001, Barny, has been very active again this month. L2022, your letter was very interesting. L2048, welcome to the page, Mike; you have done very well considering the rx used. Your modified BC454 with converters and special antennae should make a power of difference to your reception. L3039, yes Dave I know what happens when a re-building programme is in progress. By the time you read these notes I will have been on the air for 30 years. L3065: conditions in Sydney were similar to those mentioned in your letter, Ian. BERS195, how about taking a rx along to Mildura? You certainly got among those Europeans on 7 Mc.

That is about all for this month.

NOTES

FEDERAL

Fed. President: G. M. Hull, VK3ZS.

Fed. Secretary: L. D. Bowie, VK3DU, Box 2611W, G.P.O., Melbourne, C.1, Vic.

Federal Councillors:
New South Wales—Bob Godsall, VK2ARG.
Victoria—Alan Elliott, VK3AEL.
Queensland—Arthur Walz, VK4AW.
South Australia—Rex Richards, VK5DO.
Western Australia—Ron Hugo, VK6KW.
Tasmania—E. J. Cruise, VK7EJ.
Papua-New Guinea—Russ Coleston, VK9XK.

Fed. Contest Committee: Alex Hubbard, VK-7AX, Manager, Box 371B, Hobart, Tas.

QSL Bureau: R. E. Jones, VK3RJ, 23 Landale Street, Box Hill, E.11, Vic.

Awards Manager: A. G. Weynton, VK3XU, 5 York Street, Bonbeach, Vic.

NEW SOUTH WALES

President: Dave Duff, VK2EO.

Secretary: Norm Beard, VK2ALJ, Box 1734, G.P.O., Sydney.

Meeting Night: Fourth Friday of each month at Science House, Gloucester Street, Sydney.

QSL Bureau: Box 1734, G.P.O., Sydney. Frank Hine, VK2QL, Manager; assisted by Allan Smith, VK2AIR.

Zone Correspondents: North Coast and Tablelands: Noel Hanson, VK2AHH, Ryan Ave., West Kempsey; **Hunter Branch:** R. W. Rose, VK2AQR, 17 Brooks St., West Wallsend; **Coalfields and Lakes:** H. Hawkins, VK-2YL, 9 Comfort Av., Cessnock; **Western:** W. Stitt, VK2WH, "Cambijowa," Forbes; **South Coast & Southern:** E. Fisher, VK2DY, 2 Oxlade St., Warrawong; **Sth. Western:** J. W. S. Edge, VK2AJO, Wallace St., Coolamon; **Tamworth:** S. Smith, VK2APS, 50 Upper St., Tamworth.

VICTORIA

President: D. A. Wardlaw, VK3ADW.

Secretary: J. R. Lancaster, VK3JL.

Administrative Secretary: Mrs. May, 478 Victoria Parade, East Melbourne, C.2. Postal address: P.O. Box 36, East Melbourne, C.2.

Meeting Night: First Wednesday of each month at the Radio School, Royal Melbourne Technical College.

QSL Bureau: Inwards and Outwards—W.I.A., Vic. Div., P.O. Box 36, East Melbourne, C.2.

Zone Correspondents: Western: W. J. Kinsella, VK3AKW, Magdala, Lubeck; **South Western:** W. Wines, 48 Cranley St., Warrnambool; **Far North Western:** M. Folie, VK3GZ, 101 Lemon Ave., Mildura; **Midlands:** R. Jonasson, VK-3ND, Farnsworth St., Castlemaine; **North Eastern:** T. K. Tennant, Park St., Tatura; **Eastern:** J. Spark, VK3AJK, 20 Marshall Ave., Moe.

QUEENSLAND

President: John Pickles, VK4FP.

Secretary: W. J. Rafter, VK4PR, Box 638J, G.P.O., Brisbane.

Meeting Night: Fourth Friday in each month at the State Service Union Rooms, Elizabeth Street, Brisbane.

Divisional Sub-Editor: D. B. Hughes, VK4ZBD, 60 Mayne Rd., Bowen Hills, Brisbane.

QSL Bureau: Jack Files, VK4JF, Vanda St., Buranda.

Zone Correspondents: Maryborough: R. J. Glassop, VK4BG, 80 North St., Maryborough; **Townsville:** R. K. Wilson, VK4RW, Hogan St., Stuart, Townsville.

SOUTH AUSTRALIA

President: B. W. Austin, VK5CA.

Secretary: J. C. Haseldine, VK5JC, Box 1234K, G.P.O., Adelaide. Telephone: M 7851.

Meeting Night: Second Tuesday of each month at 17 Waymouth St., Adelaide.

Divisional Sub-Editor: W. W. Parsons, VK5PS, 10 Victoria Ave., Rose Park, S.A.

QSL Bureau: G. Luxton, VK5RX, 27 Belair Rd., West Mitcham, S.A. (Inwards & Outwards).

WESTERN AUSTRALIA

President: L. Roeger, VK6HR.

Secretary: J. R. Elms, VK6BE, Box N1002, G.P.O., Perth, W.A.

Meeting Night: Third Tuesday of month at Perth Tech. College Annexe, Mounts Bay Rd.

Divisional Sub-Editor: J. R. Elms, VK6BE, 29 Central Road, Kalamunda.

QSL Bureau: Jim Rumble, VK6RU, Box F319, G.P.O., Perth, W.A. (Inwards and Outwards).

TASMANIA

President: Mr. L. R. Jensen, VK7LJ.

Secretary: K. E. Millin, VK7KA, Box 371B, G.P.O., Hobart.

Meeting Night: First Wednesday of each month at W.I.A. Clubroom, 147 Liverpool St., Hobart.

Divisional Sub-Editor: I. Nichols, VK7ZZ, 9 Cressy St., New Town.

QSL Bureau: J. Batchler, VK7JB, 39 Willowdene Ave., Lower Sandy Bay, Hobart.

Zone Correspondent: North Western Zone—Terry Tongs, VK7TT. **Northern Zone**—Ray Waldon.

PAPUA—NEW GUINEA

President: F. N. Nolan, VK9FN.

Secretary: Roy Taylor, VK9AU, P.O. Box 204, Port Moresby.

Meeting Night: Last Wednesday in each month, R.S.L. Reading Rooms, Ela Beach, P. Moresby.

QSL Bureau: G. Kiernan, VK9GK, P.O. Box 204, Port Moresby.

FEDERAL

W.I.A. REPRESENTATIVE TO GENEVA CONFERENCE LEAVES

John Moyle, VK2JU, W.I.A. representative with the Australian Government Delegation to the Extraordinary Radio Conference of the International Telecommunications Union, which commenced in Geneva on August 15, left Australia on Qantas Flight EM533 on Friday, 7th August.

Passing through Melbourne en route, John was met by the Federal President, Max Hull (VK3ZS), and Vice-President, Bill Mitchell (VK3UM), when the plane landed at Essendon airport for an hour. John was in high spirits and hopeful for the future of Amateur Radio. His farewell message was taped for re-play over Divisional stations of the W.I.A.

MEMBERS OF DELEGATION TO THE GENEVA CONFERENCE

Herewith is the list of members of the Australian Delegation to Geneva:—

E. J. Stewart, Supervising Engineer, Postmaster-General's Department—Leader.

L. F. Pearson, Controller, Radio Branch, Postmaster-General's Department.
L. J. Keith, Investigation Officer, Radio Branch, Postmaster-General's Department.
J. S. Wigg, Radio Inspector, Radio Branch, Postmaster-General's Department.
M. Strohfeldt, Divisional Engineer, Engineering Division, Postmaster-General's Department.
R. Baird, Assistant General Manager, Overseas Telecommunications Commission.
H. A. De Dassell, Australian Member, Commonwealth Telecommunications Board, London.
W. Hatfield, Australian Broadcasting Control Board.
E. Anderson, Department of Civil Aviation.
Lt. K. Williams, Department of the Navy.
Capt. J. Mapson, Department of Army.
Sqdn. Ldr. R. Starkie, Department of Air.
J. M. Moyle, Wireless Institute of Australia Representative.

Representatives from the Department of External Affairs will also join the Delegation when it reaches Geneva.

ARMY CLUB PROPOSE AMATEUR STATION

From "Scan," the Southern Command Army Journal, of June 1959, is extracted the following:—

"Plans are now being made to establish a licensed Amateur Radio Station at Puckapunyal which, members hope, will be on the air in the near future.

"The aim of the club is to foster Amateur Radio and act as a medium to train members to the standard necessary to obtain a P.M.G. Certificate of Proficiency.

"This will enable them to obtain a licence to operate their own stations.

"The club has the interest and patronage of Brigadier G. P. Hunt, Area Commander, who was an active Ham for some years, and will be fostered by Capt. V. A. E. Crawford.

"Capt. Crawford is building his own equipment to operate on the 50 and 144 megacycle Amateur band.

"Postal Department permission has been granted to Sgt. R. B. Wallace, of 1 C.O.D., Bandiana, to operate an Amateur Radio Station. He has been allotted the call sign VK3UW. Sgt. Wallace has been interested in Amateur Radio for some years and has built several receiving and transmitting sets."

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FED. CONTEST COMMITTEE

Members of the Federal Contest Committee now comprise: Messrs. R. D. O'May, 7OM; L. R. Jensen, 7LJ; F. E. Nichols, 7RY; J. C. Batchler, 7JB; A. Hubbard, 7AX. After a lengthy discussion regarding their duties, at the first meeting of the Committee, it was finally decided on the following allocations (on a possibly temporary basis, until such time as the work involved in contests was clarified by experience):—

Mr. A. Hubbard to be general manager and chairman.
Mr. F. E. Nichols to be secretary and treasurer.
Mr. J. C. Batchler to be sub-manager of VK-ZL Contest and publicity.
Mr. R. D. O'May to be sub-manager of Ross Hull and N.F.D. Contests.
Mr. L. R. Jensen to be sub-manager of R.D. Contest.

In addition, 7CH, 7DW, 7ZZ, 7AL, 7KS and 7LZ are to be ex-officio members of the Committee.

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FEDERAL QSL BUREAU

A new Award styled Port Wine Award, established by the Port Wine Institute in Oporto, Portugal, and patronised by the R.E.P., is designed "to foster the world-wide renown of Port Wine." Details may be had from this Bureau.

An expedition to Ifni signing EA9IA was scheduled to be active during July. For those who missed out it, it is stated that a regular station in the same location will be active from August onwards.

Alan VK3HL, on the homeward leg of a world tour, and accompanied by his XYL, was the guest of Al Scarlett, W2CC, for nine days in July. Al's ears did not have an opportunity to get back to normal, because within a few days of Alan's departure, Jack Elliott, ZL3CC, dropped in for a fortnight's stay. Al and Jack propose touring the Lakes region early in August and on return home, Jack will proceed south to be the guest of W5ARV who

CONTEST CALENDAR

Compiled by W.I.A. Fed. Contest Com.

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SCANDINAVIAN ACTIVITY CONTEST:

Dates: C.W.—1500 GMT, Sept. 19, to 1800 GMT, Sept. 20, 1959.
Phone—1500 GMT, Sept. 26, to 1800 GMT, Sept. 27, 1959.
Rules: See August "A.R."
Logs: Mailed not later than 15th Oct. '59 to Contest Manager, S.R.A.L., P.O. Box 306, Helsinki, Finland.

VK-ZL DX CONTEST, 1959:

Dates: Phone—1000 GMT, Saturday, 3rd Oct.—1000 GMT, 4th Oct.
C.W.—10th Oct.—11th Oct., 1959.
Rules: Overseas, as for 1957. VK-ZL, Bonus value altered (watch Aug. "A.R.").

"CQ" WORLD-WIDE:

Dates: Phone—Last week-end Oct. '59.
CW—Last week-end Nov. '59.

SILENT KEY

It is with deep regret that we record the passing of:—

VK2AYE—D. E. Evans.

VK3OS—R. O. Scott.

nas organised an extensive tour of the south and western states, on the conclusion of which Jack will embark for ZL.

One of the most travelled, best known, and most consistent QSL operators is Frank Johnstone, of the R.A.F. He has also found time to stay for varying periods in many of the rarer countries. At present he can be heard daily on 14 Mc. c.w. as 4S7FJ. Frank uses only 25 watts input to a Zepp. If you need a Ceylon QSL watch for 4S7FJ.

—Ray Jones, VK3RJ, Manager.

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NEW SOUTH WALES

The monthly meeting of the Wireless Institute (N.S.W. Division) was held on 24th July at Science House, Gloucester Street, Sydney, commencing at 7.45 p.m. The meeting was opened by the President, Dave 2EO, with approximately 45 members attending. 19 new members were admitted to membership following the reading of the minutes and correspondence.

A tribute was paid to the work which Joe 2JR has done for the Division over the years, possibly all now know that Joe has, under medical advice, been forced by his state of health to relinquish his Amateur activities completely for at least six months. He, latterly, has been responsible for the tape recording of lectures and other material which will be going out to country clubs and members. It goes without saying that we all wish Joe a speedy recovery to robust health.

The President then asked John 2JU, our accredited representative to Geneva, to make a few comments on the occasion of his last appearance at a meeting prior to his departure for Europe and the Conference. John made comment on the position as it stands at the moment, and laid particular stress on the annotations to the recommendations which are to be placed before the representatives of the many countries attending. He stated that he was optimistic regarding the outcome of the deliberations and that he hoped that his efforts would meet with success. Bill 2YB proposed that John be farewelled by the meeting, which was carried in the usual manner.

The lecturer for the evening was Perc. Naylor, who lectured on "Relays," and took us through the subject in a skilful manner, dealing with the design and operation of all kinds of relays. In proposing the vote of thanks to the lecturer, Bob 2OA pointed out how much a lecture of this kind is appreciated, and expressed the hope that this would be followed by many more such lectures.

The meeting closed at 10.30 p.m. for coffee, and members adjourned for the usual ragchew.

We have noticed that attendances at the monthly meeting are not all they should be, possibly owing to the cold weather, many who would normally attend have stayed away. We do urge you to come along each month; we wish to meet you all and would like you to partake of the interesting lectures provided each month. For the convenience of new and country members, there are two members of Council who are ready to greet you, to look after you and help you find the chaps you wish to meet, so fellows roll up to the next meeting at Science House, Gloucester Street, Sydney, on the fourth Friday of the month—August 28. See you there.

HUNTER BRANCH

Well, as this is being written the I.T.U. Fund closed and by and large it was quite a success, sobered by the fact that some well known chaps for reasons of their own did not see fit to contribute. However, congrats. to those who saw the light and I think a special thanks is due to those official arm-twisters, OATS to you; up this the OATS were 2CS, 2XT, 2ZL and 2AQR. The night was dark and stormy but the following braved the elements to listen to Leo 2AC lecture them on Receiver Selectivity: VKs 2AEE, 2ZDL, 2ZMO, 2FP, 2XT, 2ZNW, 2AKX, 2ASI, 2RJ, 2ZJR, 2ZRR, 2CS and Associates Davis, Stobbs, Sutherland, Sumner, Fyfe and Milner. Apologies were or should have been received from the Phenol Bay Mob and the Lone Wolf from Westy.

Nice to be able to listen to 2AWX on Monday nights now that Lionel hurries over his evening meal and pulls the big switch on at 1900 hours, an hour earlier. At this time your official Branch station is being heard in VR-land at strength 9 and some of the gang over there hope to be in future call-backs. Meandering along Bull Street the other day noticed a conglomeration of dural pieces on top of Bill 2XT's beam—288 or what, Bill? Had conversation with Harry 2GH from Raymond Terrace, and he hopes to be meeting the gang at our Annual Dinner on October 3. Les 2AOR, Les 2RJ and Tas 2GV also spoken to over the ether—quite an event since t.v.i. poked its ugly head into our midst. Another absentee has been Harry 2AFA, so after several false starts, managed to call on him and found that Harry had been in bed for a month and is now just starting to sit up and take some nourishment and soon he will be brushing the cob-webs off the gear.

I hope that all who are coming to the sooper-dooper Dinner and Field Day on Saturday and Sunday, 3rd and 4th October, have already advised the Secretary, Gordon Sutherland, 15 Marine View, Newcastle, as it helps quite a lot to know well in advance the attendance figures. We promise you an excellent time and the array of talent at the Dinner surprises even little me.

Unfortunately a sad note must be expressed in these notes to mark the passing of Dave 2AYE, who was well known to us all. Vale, Dave.

September monthly meeting will be at the usual place, Tighes Hill, University of N.S.W., on 11th. Weather should be better so there will be no excuse for non-attendance. P.S.—Even though the I.T.U. Fund is closed, I'm sure post dontations will be accepted.

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VICTORIA

Members are reminded that owing to school holidays, the next general meeting will be held on the second Wednesday of the month instead of the first, that is on the 9th September, at the Radio Theatre, Royal Melbourne Technical College.

The meeting will take the form of an Auction Night, and members are requested to bring along any gear surplus to their requirements. Please attach a tag, containing your name and reserve price, to the equipment. Some surplus gear from VK3WI will be available for sale, also a few items from Disposals.

The Annual State Convention will be held in Stawell during the week-end of 3rd and 4th October. Agenda items for same must be in the hands of the Hon. Secretary of the Division by 14th September. A very interesting programme covering the two days has been planned, and it is hoped that a large attendance of country and city members will be in attendance.

Joe Bramall, VR4JB, has returned to Honiara in the British Solomon Islands. Whilst in Melbourne with his wife, Joe made the acquaintance of many of the VK3 Amateurs and also became a member of the Victorian Division of the W.I.A. Whilst here in Melbourne, Mrs. Bramall combined business with the pleasure of seeing her family in Frankston, and presented Joe with a very fine 9½ lb. harmonic, Hugh Ashton. An exceedingly clever arrangement as baby arrived on Joe's birthday and their wedding anniversary. No doubt VR4JB will be on the lookout for contacts with his VK friends.

NORTH EASTERN ZONE

Wind and rain, rain and dust, combinations of all, antennae windmilling like helicopter blades making signal meters dance, so has been the conditions here this week. The junior zone correspondent reports that t.v. antennae in Shepparton were snapped off half

OBITUARY

DAVID EVANS, VK2AYE-VK2AYD

The death occurred of Dave Evans, VK2AYE, on July 27 while he was undergoing a serious operation at St. Vincent's Hospital, Sydney.

Dave was known to many Amateurs throughout the State and for that matter in all States, since in his occupation he frequently found himself in many parts of Australia. One of his ambitions which was hardly realised was to operate mobile marine from his ship in order to keep in touch with his many friends.

Men of the calibre of Dave are rare, and his voice in the affairs of the Wireless Institute will be missed by all who knew him.

VALE WES, ZS6ZK

Many VK Hams will regret the passing of ZS6ZK (Wes) on 21st July after a severe illness. It may not be known that as a result of injuries received during World War II., Wes was totally blind and had other injuries also.

He was very well known in VK and ZL and throughout the world, and was a regular habitue of 10 metre phone band.

I met him first in 1956 and during the limited periods the band was open had approx. 350 QSOs with him at 1700 hours E.A.S.T. and I am sure that the many who knew him will miss his jovial personality on the air. The Ham fraternity will be the poorer for his passing and on behalf of the VKs in general I offer this tribute to his memory and offer condolences to his XYL and family.—Alf Brown, VK3QW.

way up the mast which are approximately 50 feet up. Power lines, trees and what have you, including Sid's (3CI) t.v. antenna. However, up to writing the superior construction of Ham antennae and beams have enabled them to still stay in their rightful positions.

Bruce 3AGG now working on 6 mx with 3CI and 3APF. Sid 3CI is now back on 6 mx, but is now being plagued with t.v.i. Ted 3AOB now has a walkie-talkie which I hear he hopes to use on 40 mx with some modifications. Ted has shifted his mobile gear into a new auto (well new for him).

Practically all the other members of the zone are suffering from occupational neurosis due to writing too much to the zone correspondent.

Alec 3AT now back on the air working DX on 20 mx with a half wave 40 mx doublet of 32 gauge wire. Alec assures me it gets out like a bomb and can't be seen except at very close quarters. He has just finished a modulator so we should hear more of Alec from now on.

Since I had forgotten to remind you I hope there were more than three of this zone working the R.D. Contest this year.

MOORABBIN AND DISTRICT RADIO CLUB

Our shack at 17 College Gr., Black Rock, has come along nicely and was ready for our opening night on 21st August. Through the efforts of several of our members, benches have been erected on which to place our gear and forms and leather covered seats have been renovated to seat members at meetings. Permission has not as yet been granted by the local Council to put up poles, but we are expecting such to be forthcoming in the near future.

A record 25 members attended the meeting held on Friday night, 17th July, and much business was discussed, notably our official opening night. One new member, Arthur 3AHD, and four junior members were welcomed to the Club, bringing the membership to 41. A Theatre Night to see "My Fair Lady" was arranged for Friday, 9th October, and we are hoping to have a very enjoyable evening.

It was decided to make the first Friday evening in each month a "practical" night, so that members could discuss with their fellows problems arising from time to time which they may be having trouble with. This practical night will give junior members an opportunity to learn what cooks, and replaces the proposed "natter" night.

Don't forget that a certificate is issued to any VK station having worked 14 Moorabbin and District Radio Club stations including VK3APC. Make application to Secretary, Alf Chandler. VK3LC, giving christian name, call sign. date and time of the respective QSOs.

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QUEENSLAND

TOWNSVILLE

The last meeting of the T.A.R.C. was again well attended and main interest of discussion was the formation of a Far Northern District of W.I.A. After almost all present had voiced their opinions, it was decided that we would have nothing to gain at present by severing apron strings with the Queen Street gang. The main census of the debate was that the added membership fee; not all members in the north joining the branch, and that the bulk of the work would fall on the few willing horses.

Unfortunately I could not stop for the discussion due to my daughter meeting with an accident, which necessitated a brief visit to apologise before taking her home from the sports field. It was decided that I meet the Cairns boys during the week-end on my visit there and extend to them personally the good wishes of our club and invite them to a special meeting on the 29th August. At this get-together I was asked numerous questions and really thrashed out some points of difference. Was fortunate to meet Arthur 4FE on a brief visit from Normanton, not having seen him for a long time; still looking well. Claude 4ZY, Bill 4XM, Basil 4ZW and maybe a couple of others hope to make the trip to Townsville, depending on their various places of employment. Is the one-eyed monster threat the reason why so many of the southern Queensland gang are off the air, in a spate of re-building? Very few of them are heard.

A film evening held by the local club was very poorly attended, in fact it was quite disappointing to the club officers who strive to keep the club progressive. The films were all educational, one being our hobby—radio.

Bob 4CR heard again on the air after a absence; not even at the meeting. 4EJ doing a spot of c.w. while re-building. The twins, 4MF and 4PF, still cheating each other at cards while the band is dead. Alan 4PS has all gear ready to pile up a good score in the R.D. Contest; he certainly enjoyed the last one. John 4DD still wrapped up in the s.s.b. project. Claude 4UX heard on the new tx, apparently John 4DK had cleared up his gravel throat as Claude's modulation seems B.B.C. quality.

Vern 4LK and Ken 4ZAK still on 144 Mc., while Bill 4ZBE still sits on 50 Mc. and works the odd opening to JA land. Bob 4RW hopes to hear many southern States during the R.D. Contest on this band; maybe get W.A.S. 50 Mc. Bert 4LB still vainly calling CQ DX on dead bands and looking forward to them opening up. Doug 4ZBM heard working JA land; also worked him myself. 4OM still flying around; now knows the area where the "Sea Fox" was in trouble.

The Amateur in everyone's mind is John 2JU; hope he brings home the "bacon" from Geneva. Basil 4ZW reports that the recent cold spell may be the reason for him not working the far north boys on 7 Mc. although still manages the "Kookaburra" session at 7 a.m. each morning. Harry 4ZP back on the job with the R.R.R. and looking forward to next holiday. Hope the XYL is now better, Harry; same wish to Jess, better half of 4UX.

Rex 4LR up home in the sunshine on mid-winter vacation. Harry 4HV getting itchy feet and hopes to get back to sea again. Alan 4BE has been down awaiting re-opening of DX conditions; now a "hi-fi" devotee. Charlie 4BQ now on deck again after attack of the mumps.

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SOUTH AUSTRALIA

Peek-a-Boo! I am back again! Despite all the plots, the espionage and the dubious tricks to the contrary, the wheel has turned a complete circle and I am once again writing the VK5 Divisional notes for the magazine, with my usual reckless abandon. "Comps" 5EF, who has been writing the notes since I vacated the position and, incidentally, doing a much better job than I could ever hope to do, now finds that the commitments of his vocation will in future entail quite a lot of travel Interstate at all sort of times, and thus will not permit him to concentrate on the notes. Now all who know "Comps," also know that he is something of a perfectionist in all things, and if he cannot do a perfect job on the notes, then he would rather not do them at all. So to put it briefly, as I always do (Oh, that man is in my hair again!—Editor) despite what the Editor may say, I am now the Sub-Editor for VK5, which you may or may not know is recognised throughout VK as the leading Division of the W.I.A.

Now the job is not going to be easy. Most of the enemies that I made when I used to write the notes have faded into oblivion, or are now treating me with ignore; I have forgotten the rackets that I used to work to dodge the eagle eyes of the editorial staff, and therefore I will have to depend upon you. dear reader, to help me with news, scandal, dubious stories and the like, to at least approach the standards set by my pre-dess—predecc—the bloke that was writing the notes. Can I count on you? Can I rely on you? I cannot! OK, pull your cranium in, I will fight on alone. I will tell lies, I will make up untruths, I will give my imagination full rein, secure in the knowledge that the Editor and his mob will have to serve the result of the libel actions in gaol. Well, here goes, keep your fingers crossed, block your ears up, because anything can happen now that Pansy rides again. Hi-Ho Uranium!!

The monthly meeting of the VK5 Division was held in the clubrooms to a capacity audience of members and visitors, and all present thoroughly enjoyed an interesting and instructive lecture given by Brian Sheehan on the principles and construction of turret tuners. The original idea was for the lecture to be a joint affair, but the co-partner, Peter Rudge, was unable to make the meeting and he forwarded his side of the lecture on, and Brian did a solo act. The lecture was illustrated by slides, and together with the clear and lucid explanations given by Brian, the attentive audience received more than their money's worth on the subject of turret tuners. The vote of thanks to the lecturer was ably proposed by Al 5ZCR and the enthusiastic response on the part of the members was a clear indication of its appreciation.

General business saw several topics of a domestic and Federal nature brought up for discussion, and the Chairman, Brian 5CA, also asked for someone to move a vote of appreciation for the work of the retiring Sub-Editor, to which the members present agreed with one accord. A suggestion that a word of thanks be made to the newly appointed Sub-Editor was received with such violence and turbulence by all present that the said newly appointed Sub-Editor blotted his copy book immediately by telling all present just what they could do with their words of thanks, and the meeting ended in uproar at the witching hour of 10 p.m. The normal ragchew continued of course until a much later hour.

At the moment of writing, Inky 5WF is touring the Eastern States per car and caravan. Expects to be drifting around for a couple of months.

Tom 5TL, of Renmark, has been sighted down in Adelaide recently, but evidently kept out of sight of my telescope. Tom, by the way, is something of a vocalist, and I have it on good authority that when he warbles a verse or two of the latest hits like " I passed by your window" or "Till the sands of the desert grow cold," all the teenager itty-bitty's faint, scream and fall in the aisles. "Tom of the tantalising tonsils" they call him.

5JW can be heard most times on 21 Mc. with his beam pointed to the prevailing DX, and let any station bob up with even the slightest tinge of a Scottish accent, and John is on to him like a bulldog and never lets go until he gets him. I understand that only stern measures prevent him from wearing a kilt in the shack. How subtle can I get!!

5JO is another one who bobs up now and again in unexpected places and he is still as keen as ever for contacts. He has had to slow down a little since his sickness, but like the old song, you can't keep a good man down. Still got that 794 element beam for me Joe? I will surprise you one day by picking it up.

Roop 7RM heard on 7 and 21 Mc. recently. He was ex5RM of many moons ago, and still has many pleasant memories of the best State in VK. Cheers Roop. John 5JM is a new one to Port Lincoln as a fully fledged Amateur. Passed the December exam. I think, although he had a Z call for some time. Nice work OM, hope we contact some day.

Wally 5DF is back on again after a re-build which put the shack into the sitting room and now Okayed by even the XYL. Do you dress for contacts as well as for dinner, Wal? How is the tower coming along? Pat 5LT is fairly consistently on 14 Mc. I do not often hear him at my QTH, but I certainly hear him being called from overseas. George 5GA is another one who lives at Port Lincoln and although not active on the air, is certainly active in other spheres. Like Doc 5MD, he runs a boarding house, but the tenants have to pay. Oh, I'm a trick.

There was a time when a contact with a mobile station was considered to be something. Nowadays such contacts are commonplace and it is remarkable how many of the local gang are interested in this form of Amateur activity. Jack 5WT, whose home QTH is at Murray Bridge, with the call sign of 5AM, is one who has been mobile for quite a long time. I heard him in contact with 3AEC late one afternoon and he was mobile on the way down to Glenelg, with an outstanding signal on 7 Mc.

Another one to give the mobile game a go is George 5GD and I have had a couple of contacts on 7 Mc. with him as he was on the way home. I heard him one afternoon calling a VR with his 4-watt job in the car, and was keen to see if he got him. He did not, but you can't blame him for trying.

Heard Cec. 5CD on 7 Mc. the other Sunday morning with an excellent transmission. Later on in the day I heard him again on 21 Mc. in QSO with Rob 9RO. Cec. was somewhat apologetic for his low power, but as far as I am concerned it was doing an excellent job. Long time no see, Cec.

Any time I switch on the rx and listen to 7 Mc. I can bank on hearing Ken 5IM. In fact any time I switch on and listen to any band I can hear him. He has an excellent signal, seems full of enthusiasm for the grand old game of Amateur Radio, and I must confess that every time that I listen to him in QSO with anybody, I have a feeling of nostalgia for the good old days when it used to take a surgical operation to separate me from the shack.

One can be unlucky, you know, especially when it comes to being caught to write these notes again. Actually it all happened because I have a grandson who likes nothing better than to sneak into my bed early in the evennig and fight fierce battles with Red Indians, capture lions, tigers and an occasional elephant, and even take on single-handed the big bad wolf that was always frightening "Wed Widing Hood." Between you and me I have never been able to find any "Wed Widing Hoods" where he says they are, but then I have a poor imagination! Anyway, to make a short story longer, all of these highly exciting adventures take place at the end of the bed, preferably under the bedclothes, and the other night he was engaged in a battle to the death with a big, big, big crocodile, to wit, my big toe, when he suddenly decided to gallop up and tell me how the battle was getting on.

Unfortunately for me, I decided at the same instant that it was time to rescue my big toe, and my lip met his head with a bump, and he, the crocodile, and my lip, bit the dust with plenty of my rich red blood to add to the general effect. Next morning my lip was up like a balloon and all I could say was "Bbektlvzzx". Gordon 5XU rang me during the afternoon and said, "Comps is giving the notes away, and you know what that is leading up to." Immediately on the defensive, I said, "Cbektlvzzx." He replied, "Thanks very much, that will take a load off of our minds," and whilst I was still screaming out "Cbektlvzzx—Cbektlvzzx" the click of the telephone told its own story. To what depths will some people sink to achieve their ends! Wouldn't it!

Had a pleasant QSO with the Adelaide University Radio Club recently. Brian 5TN was the operator at the time, and they certainly have an excellent set-up there. They seem to be on the air at varying times, my contact was on 7 Mc. at lunch time, and even if the band sounds dead next time you are listening, give a shout and they might be around too.

Reg 5RR and Comps 5EF have been heard on 7 Mc. with the proverbial duck-talk at various times. When I say this I am having a bit of a guess because I have never been able to decipher their transmissions, but when the station they are working says, "Over to you," I rush up and down the band until I find some quack-quacks and decide that I have found them. How they expect me to write notes when I can't even read them beats me, but I will beat them yet. I have details of a secret device using only 48 valves to attach to my crystal set, which will pick up their signals in two sections and join them together. Don't ask me to write an article for the magazine on it, the ex Technical Editor, whose last name begins with P., is not even on sneering terms with me. (Now he knows you are back, he may return also—Editor.)

Who was the absent minded VK5 member who came along to the last meeting in his automobile and then went home in the public transport, wrapped in a trance after being hypnotised by the kerbside discussion on s.s.b. I am led to believe that he sneaked out of bed and disguised himself in a false beard to get his car just in case they were still on the kerb carrying on the meeting. Your secret will be kept providing that you address me as "Sir" at our next meeting!

The social notes for July saw the inclusion of the news that Joe 5JO attended the wedding of his son Ray, together with a representative gathering of the local gang, including that well known identity Jack 5JS. The happy couple went for a honeymoon trip by caravan way up North, and finished up at Hawker where they bumped into Les 5UX and family, who showered them with the well known brand of Northern hospitality, for which Joe sends his thanks, Les.

Channel 9, and the Best Broadcasting Station in VK, hereinafter to be known the B.B.S., are opposite each other in North Adelaide, and I often see John 5SJ, complete with blueprints, training manuals, odd pieces of hook-up wire and an intense air of concentration, passing through the swinging doors of NWS9. They tell me that this t.v. is the coming thing, but I am too busy with my kerosene lamps and flint lighters to go into the subject.

The local Prince Alfred College had its "Old Boys' Day" this week and Gordon 5XU, who is one of the chalf-wielders there, was horrified to be asked, as he walked through the Old Boys' gate, "did he belong to 1892 or 1893!" True as true, cross my heart.

The Upper Murray gang, Hughie 5BC, Harry 5KW, Fred 5MA, John ex 5QV, Tom 5TL and Associate Sid Munday foregathered at the domicile of Hughie one night recently to hear a tape recording of the synthesis of sound, and also to have a chinwag on all Amateur topics. Unfortunately, the tape would not behave itself, but as a tape on transistors was also available, the show went on as scheduled. The usual after-meeting talk took place, and the usual goodies put on the table by Madge strengthened everybody for the trip home. Will check the tape fellows and if necessary redub; never fear, Pansy is here.

Harry 5KW produced at the meeting an ingenious tx and rx for 50 Mc. This provided a good topic for the night. Due to the fact that Tom 5TL was for a time at Alice Springs, he still has his work cut out in telling interested parties that he is no longer a N.T. contact for the W.A.VK. Award. He recently received a card from a K2 sent by airmail to Alice and re-directed to Renmark inside of 10 days of posting. Apparently he was not wasting any time in catching up with the elusive N.T. contact—or was he?

No news this month from the South East gang, and I thought I was pretty sweet with them, oh, well, fate can be cruel at times.

Well, waxing lyrical, I sing with great gusto "The time has come the walrus said, when we must put this magazine to bed." On first glance this would seem like an attack on my palsy-walsy the Editor, but believe me dear reader, nothing is further from what passes for my mind. I must keep in his good books, because I have hardly written anything this month, and he will be as cross as cross with me. However, I hasten to assure him that I am capable of bigger and better thing (Don't I know it.—Editor) in the future, and before long the VK5 notes will be as well known and as important as VK5 itself. Now if you will put that red pencil down I will promise that I will stop immediately, but there is one thing I would like to know? Is it true that you pay your Divisional Sub-Editors by the footage or the yardage? Put that lash down at once, Sir! and that is not my strait-jacket, mine is embroidered with itty-bitty—Pansies!!!!!!

— . . . —

TASMANIA

During July, the DX bands have been generally poor in this Division. On the other hand, the 40 and 80 mx bands have been generally good. Conditions were accordingly favourable for the VK9s in their endeavour to popularise the 80 mx band. Although I did not manage to hook any of them, several were heard in Hobart, but Russ 9XK was undoubtedly the most consistent, both in operating and in signal strength down here. The ZL Memorial Contest also drew quite a few stations on to the same band. I heard fifteen VK7s on the band on one evening, and that must certainly be a record as far as I am concerned, as it is very seldom that I hear more than five VK7s on any band on any evening.

It was good to hear Peter 7PF on the 7 Mc. band recently. Surely your desertion of the 144 Mc. band, Peter, must be as rare an occurrence as c.w. emanating from Keith 7RX. By the way, Keith 7RX has his rig capable of output on five bands, from 80 through to 10 metres and hopes soon to have a crystal converter to take his rx to the higher frequencies. Harry 7BR should, by now, have some 80 mx portable gear operative, as well as being portable. We will be on the look out for you Harry. Terry 7TT hopes soon to have a new tx in operation with an 807 in the final. I understand circuit design is similar to the rig operated by Max 7MX.

Myles 7MF is now located in Hobart again, and should soon be heard causing QRM down here. We are delighted to welcome three new full members to the Institute: 7FH, 7RC and 7CL. We also wish Jim 7ZAM all the best now that he has moved to VK3. David 7ZAI is reported to have made a DX QSO on 50 Mc. about the middle of July; good work, David. The 144 Mc. boys have also been busy and recently established communication from the top of Mount Wellington (near Hobart) to Devonport. Col 7LZ was heard S9 down here on the same occasion, but contact was not made with him. It is hoped the v.h.f. bands will receive their due publicity in future over the Sunday morning broadcasts, as Alan 7MY will be called in from time to time as the v.h.f. spokesman.

At the Divisional meeting held on 5th August the first half of a most interesting lecture on Transistors was most ably delivered by Mr. Graham Donne. Not only did he know and express his theory well, but practical examples of transistorised equipment enthralled those present. This address was taped, so that the other zones will have the benefit of our good fortune.

Alec 7AX has recently become a grandfather, and by virtue of the same happy event, Dave 7XX became a father. Congratulations to both of you.

NORTH WESTERN ZONE

Well here we are at the beginning of yet another financial year, with the annual meeting held on August 4, at our usual meeting place, Lakin's Hall, which has proved a most satisfactory meeting place during the past twelve months. Only half our members turned up for one of the most important meetings of the year, but it allowed those who did, to gather closer round the fire while the important business of such a meeting was dealt with.

Preliminary business was duly disposed of after some interesting and lengthy discussions and suggestions passed or otherwise. A new President was elected in the person of Frank 7FH. Congratulations Frank and every good wish for the coming year. Vice-Presidents Jim 7JO and Roy 7RN were duly placed in office. We have a new Treasurer in associate Allan Baptiste, who works in the same establishment as our worthy Secretary Max 7MX who was re-elected to that doubtfully honourable position once again. I told you last year Max that you've got that job for life.

Yours truly has once more to carry on as zone scribe, so looks like more head scratching and typing.

We received a visit from the Headmaster of the Ulverstone High School who discussed arrangements for the forthcoming Exhibition. Experiences from same Exhibition will be related later.

Other zone activities were discussed at length and necessary arrangements put in hand. The next zone meeting is to be held on Tuesday, 1st September, and I believe Harold 7MZ is preparing a thesis of the operation of the automatic telephone exchange.

Our ex-President, Lee 7KC, presented his Annual Report which told of progress in many directions during the year. Zone Nets are still being held each Tuesday evening and in future they will commence at 1930 hours. How about everybody joining in, even if only to let us know that your rig still works. Also don't forget the W.I.C.E.N. Nets of a Sunday evening—phone 2000 hours, c.w. 2030 hours.

I sincerely hope everyone who possibly could, worked to their utmost during the R.D. Contest and have duly got their log sheets posted OK.

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